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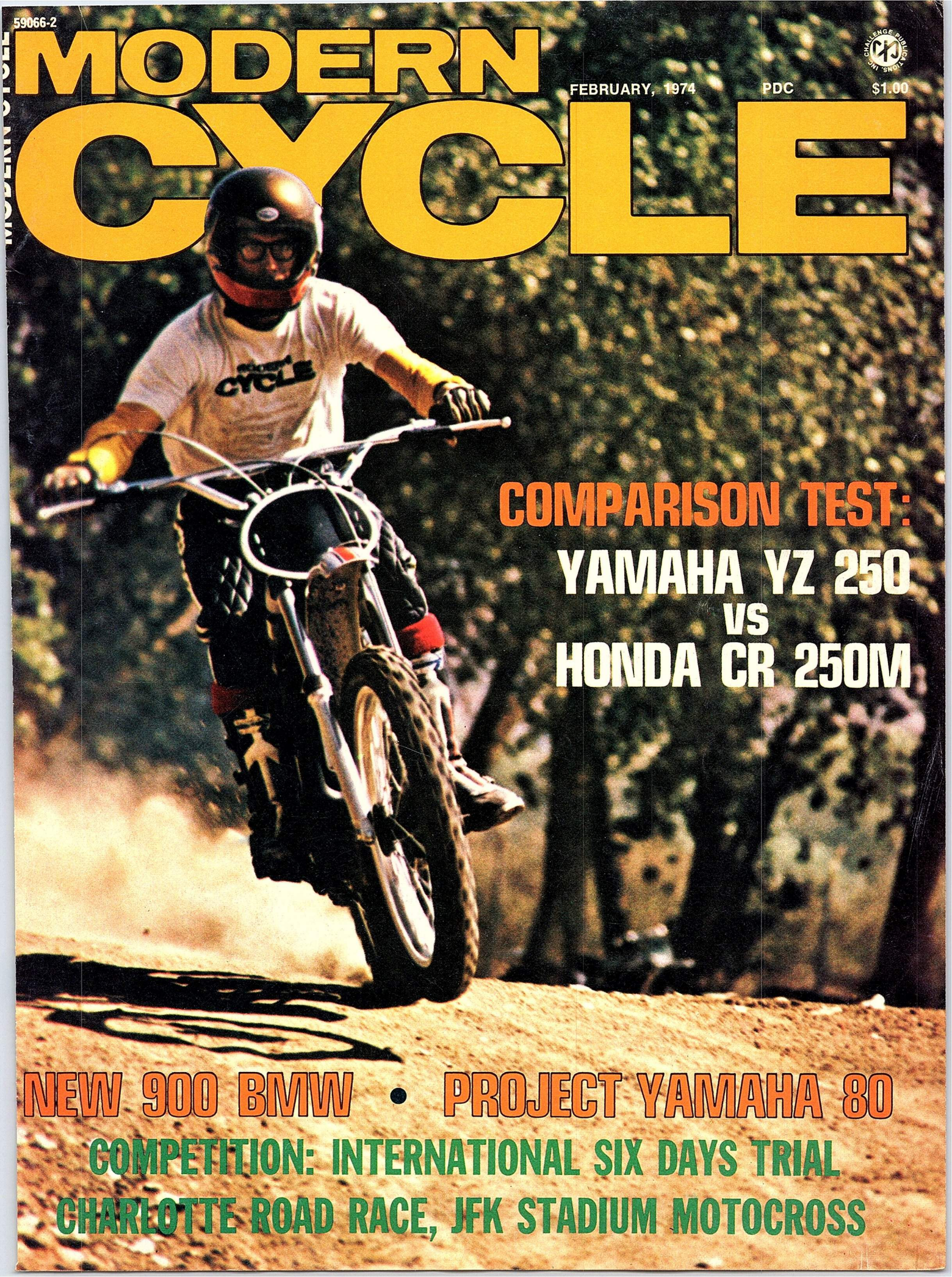
MODERN CYCLE

FEBRUARY, 1974 PDC $1.00

CHALLENGE PUBLICATIONS, INC.



COMPARISON TEST:
YAMAHA YZ 250
vs
HONDA CR 250M

NEW 900 BMW • PROJECT YAMAHA 80

COMPETITION: INTERNATIONAL SIX DAYS TRIAL
CHARLOTTE ROAD RACE, JFK STADIUM MOTOCROSS

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MODERN CYCLE

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Funny, it doesn't look like an XS1.

81 TA DA
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The Cover: That's the new Yamaha YZ250 heading right at you with Mr. Peepers allegedly in complete control. It (the bike, not Fulton) originally had a list price of $1800, so the Editor photographed it with a very expensive Nikon. It seemed only fitting.

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MODERN HAPPENINGS

Did we have you wondering what happened to the January issue? We were too, for a while. However, we're back on our regular monthly schedule again (sorry about that Kasey), so look for us about the tenth of every month.

We could relate that there was no issue because the staff disappeared under mysterious circumstances. We could tell how Goodhart was picked up by these strange looking creatures just outside of Pascagoula, Mississippi, where he was entered in a local enduro with his latest project, a two-wheel drive lawn mower conversion with velocity stacks and an uncomfortable seat. Did they really have crocodile skin and put lights all over his body? (Or, is Gordo back on drinking ATF again?)

Should we tell you that the Editor, who was sailing the length of the Baja coast while covering the Mexican 1000 off-road race, was swept out to sea on his windsurfer, never to be seen again? That all they ever found were his shinguards?

Is it true that Peepers never really returned from Germany? Have we been using a Manchurian Candidate for our picture taking? Is the real Road Test Editor still over there now, somewhere in the Swiss Alps, motoring around on a R90S, photographing sunsets and picking up stray pop bottles, in case he ever decides to go racing again?

We could tell you this, and more. But actually, if you haven't noticed yet, times are getting rough, and paper is getting rougher—to get hold of. You may have noticed that some other publications are cutting down frequency of publication or reducing their page count. So are the newspapers. As an alternative approach, we skipped an issue. We knew you'd be kind of busy with Christmas shopping anyway. But the gang here stayed busy trying to dream up even more outlandish schemes to separate you from eight bits every month. Stay tuned in. You'll want to be watching as *Team Modern Cycle* continues to gracefully(?) skim over the whoop-dedoos of big business reality, whatever that is.

During our first test outing at Indian Dunes with the CR 250 Elsinore and the YZ 250 Yamaha it began to look like old home week. Former MC staffer Brad Zimmerman was out testing for *Pop Cycling* and we also saw *Motocross Action's* Associate (roving) Editor Paul Boudreau.

During the month or so that Paul was Dirt Ridering across the hall from our spacious(?) work area (if it wasn't for the Ossa SDR poster, we'd never show up), he took three golds, four silvers and a bronze for office attire. Len still claims he has the nicest fringed cutoffs, but Paul won the award for funkiest cap, most provocative t-shirt, and shapliest bare feet (no contest).

But we're still wondering who the other guy is, in the Don Emde t-shirt. He doesn't look like he won Daytona. All we know for sure is that he knows Toledo Hansen and he's never tried windsurfing.

George Etheridge, from Honda's Product Testing and Development section, met us to deliver the CR for testing. We gave him an MC t-shirt and sent him around the track with Walt to have his picture taken. George has already made a cover riding the Elsinore and ordinarily doesn't do "inside" photo work anymore, but we talked him into it. (Promised him some real trick Maico forks for his Yamaha. Or was that Ake Jonsson?)

Yamaha also happened to be out there too, and seemed a bit concerned that the presence of a Honda staffer might influence our opinion while comparing the two bikes. We assured them that *we* don't even influence our own opinion, and subsequent outings would be staff only. And then we chased one of their SC 500s around the track so they wouldn't feel left out.

When he's not out with test bikes, George and his cohorts center their activities around trying to improve what they already have for sale plus developing some new goodies for the troops. They are working on some interesting playbike and enduro competition variations of the CR units. Look for a report on one (or more) of these "project" MT'd CRs, which can be built with stock Honda parts, in next month's issue. How about a TL'd CR since our Editor has lately taken to trying trials riding (at least that's what he calls it) with his CR? This could lead to CR'd XRs or SL'd XLs (say that one five times, fast). Just a never ending daydream, as the song goes.

While Len and Walt were out riding with George, Harvey Mushman

showed up with a CR, and joined all the assembled magazine-type people for some spirited riding about the Shadow Glen course. Harvey appeared in the film "Never On Sunday." He's still wondering if they are going to make him pay all those tickets he picked up in San Francisco, some nonsense about racing cars up and down the hills—the paved ones. Harvey had borrowed the Honda from a movie star he knows. A puzzling thought, possibly ranking right up there with the identity of Citizen Kane's Rosebud, is why does Harvey's Honda have a CZ sticker on the rear fender?

For old movie fans, we have a product evaluation of the Alan Ladd pipe for the Kawasaki F-11. Better make that the Whisperin' Smith pipe. Alan made a movie called "Whispering Smith" back in 1948 or thereabouts, and it still shows up from time to time on the tube. Maybe next month we will test the Shane pipe, showing Brandon DeWilde running after Walt crying out: "Come back, Walt, come back." In the Smith movie Alan Ladd was a harmonica-playing troubleshooter for the railroad out west. He ran into trouble when his best buddy got hooked up with the bad guys. Did we run into any trouble? Our evaluation tells all, and also indicates whether Whisperin' really whispers.

To illustrate our pipe evaluation we solicited a mustachioed *Modern Cycle* subscription salesman who just happened to be passing by the building with a "Tony Randall Sings the Classics" album under his arm. He told us his name was Gordon Goodhart, a likely sounding name if we ever heard one. Whoever he is, he sure has rotten looking legs.

We've been pouring over the response to our Reader Survey. It gives us something to do during commercial breaks while watching "Captain Mephisto and his Transformation Machine" at 3 a.m. Cal Worthington and his dog Spot selling Dodges gets a little stale after a while. We'll pass on a summary of the survey in a future issue. It appears that the suspended Action Photo Contest and Miss Modern Cycle are quite popular. Look for a special announcement in the back of the magazine.

The ISDT photo coverage in this month's issue arrived courtesy of Dave Drivel and the Claw, who contrary to published reports has never endoed a YZ. (He did loop it, though.) We didn't notice too many dogs on their proof sheets, but there were plenty of cows and horses. This is the type of wide scope coverage you can count on from *Modern Cycle.* Last month the dogs of Pocono and this month the horses of Massachusetts. Next month we're going to test the new Yamaha trials bike at the L.A. Zoo. That ought to be real exciting, although the giraffes may not agree. The way we look at it, our four-legged friends seem to have done a better job of living together in this world than we have lately, so why not give them some ink? ●

THE NEW SHERPA T 350

Bultaco has always set the trend in the trials world so when we say it's time to make a change...you'd better believe it! When we first made a 250 two-stroker, for example, the "experts" laughed and told us that a trials bike just HAD to be a four-stroke "thumper". How many of those thumpers do you see these days?
Now we're getting back to the thumper-type power, however, with our latest Sherpa 'T' 350. But we're combining that sort of power with the light weight and precise steering of our famed 250. That's why we say it's time to change from the two-fifties. Because our new 350 does anything that the two-fifties can...and does it a whole lot better!

BULTACO
Silverado, California

POWDER PUFF POWER

BY KASEY ROGERS

THE LITTLEST ANGEL

Sprinkle a handful of leftover Christmas stars across the shoulders of a freckled little 5-year-old, top her with a Bell Star, point her toward a motocross course, and you can only come up with racing's Littlest Angel, Mini-mini Puff Linda Stephenson.

Would you believe little Linda only began racing last Spring at Trojan Speedway, and already faces the possibility of becoming a Pee Wee Expert?

Linda began as many little sisters do, following her 6- and 7-year-old brothers, Kenny and Rick, through the desert on an altered Mini-Honda. She was only 4 then, but would start riding at 8:00 a.m. The folks had to take her off the bike for lunch, then she would ride the rest of the day. Or at least until she crashed. Then, dad would pick her up, put her bike in gear, and she would ride 'til she fell over again.

When her brothers began racing mini-cycles, tiny Linda noticed the Pee Wees racing their little Indians, badgered dad into buying her one, then cried until she gained consent to race. A major obstacle was finding a helmet small enough. That problem was finally solved by wearing a thick knitted cap under the smallest helmet available.

The only problem bouncy little Linda ever gives her dad is when something is wrong with her bike and she can't race. Then the flow of feminine tears is worth the price of admission. All she wants to do is be out there with the boys (and who can blame her?).

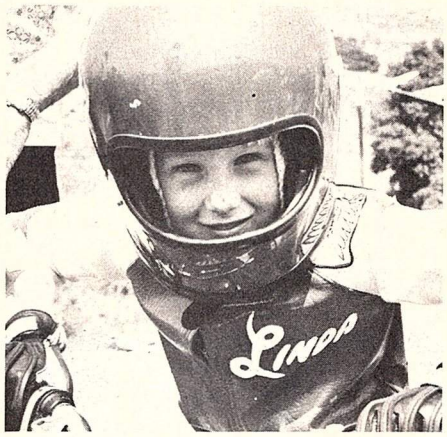
In fact, a number of young boys have started racing because they saw a girl out there and figured if a girl could, they could.

One little guy bugged his dad for a bike, raced against Linda, lost, and hung it up. That was the untimely end of what may otherwise have been an illustrious racing career.

Make no mistake. Little Linda is out there to win and does more often than not. In fact, her familiar #118 sped to a second place finish in the California State Championship Pee Wee Novice class. And she was the only girl in the class.

Looks like a new breed of Powder Puffer in the making. Can you imagine how fast she'll be at 15?

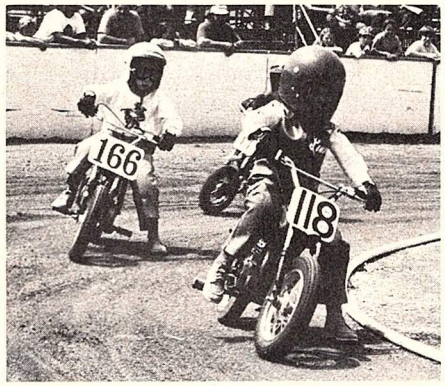
Meanwhile, can't you just see old Santa's face when this golden-haired little cherub climbed upon his knee and he said, "And what do you want for Christmas, little girl?" and tiny Linda grinned bashfully and lisped, "Well, Santa, I'd like a little baby-doll that wets, a real Suzy Homemaker electric oven, a set of pink leathers, some Full Bores and a new modified XR 75!!"



Racing's Littlest Angel, Linda Stephenson, 5, on the line in full racing gear. Linda's been winning against the boys so often, she's about to be booted up to Pee Wee Expert. (Bet they think of her as a Little Devil.)

NEEDLES AND PINS

Remember the Tennis Elbow bit? The one I got from ill-fitting MX bars. The pain of it all? The cortisone shots, etc., etc., etc. Well, the world is all together again. The sun is shining ,the birds are singing and yours truly is deliriously happy riding her spanky-new Elsinore again, all because of some ancient Chinese gentlemen who went around sticking needles in people. (You get desperate enough, you'll try anything.)



Mini-mini-Puff Linda Stephenson, #118, gives the boys a false sense of security as she runs second at Orange County Fair Grounds. The only girl in her class, Linda went on to the overall win of the day.

The name of the game is Acupuncture. Capital A-C-U-P-U-N-C-T-U-R-E. Don't ask me how, don't ask the doctor how, don't even ask those ancient little Chinese gentlemen how, but it works!

I can only repeat what happened.

On my way, recently, to Los Angeles International Airport and subsequently, the Yucatan Peninsula (more about that next month), I dropped in at my local acupuncturist's office. (Actually, I made the appointment a month in advance. A highly accredited doctor qualified to practice acupuncture is in great demand these days.) After the usual forms and information gathering session, I donned a chic paper hospital gown, stretched out on a sterile table in a sterile Musaked room and waited. Waited, while visions of giant knitting needles danced in my head. Somehow, I began to wonder if this was a good idea. Before total panic set in, however, the doctor arrived and disdainfully removed the bandage cinched around my painfully sore right arm. The cinch was supposed to limit movement and therefore, further injury and pain.

The doctor's voice was quite calm and reassuring as he explained what he would be doing, and he showed me the needles (plural) he would be using. (I was happy to see they resembled the finest embroidery needles more than knitting needles.) I could hardly feel it when the tiny needles were deftly inserted into the key meridians (whatever they are) and various other spots. In all, he inserted a dozen or more of the little darlings up and down my arm, behind my right ear, even in my calf. Then he twirled them about, lowered the lights and left the room.

In short order, I thought I had landed too many times on my head, because I was experiencing the nicest natural high imaginable. So peaceful, so relaxing. I was afraid to tell the doctor when he returned for fear he would assure me I was going crazy, but actually he said it was quite a normal reaction. Inexplainable, but normal. He twirled the needles again and about a half an hour later removed them all, turned on the lights, and said to make an appointment for next week.

I replaced the cinch on my arm, noting it really didn't feel any different, dressed, and headed out for Yucatan.

Two days later, while shooting the pyramids at Chicken Itza, I noticed that the cinch on my arm really seemed more annoying than helpful, so I took it off. A day or so later, I found myself brushing my hair, which is not too unusual except that I was doing it for the first time in three months with my sore arm.

At my second appointment, ten days later back in Los Angeles, I estimated my arm to be 50% improved. By the next week, when I went for my third appointment, I estimated it to be 90% improved, and I was back riding again. I didn't need another appointment.

Don't ask me how, don't even ask the doctors, but after three months of hurting, three acupuncture treatments set the world straight.

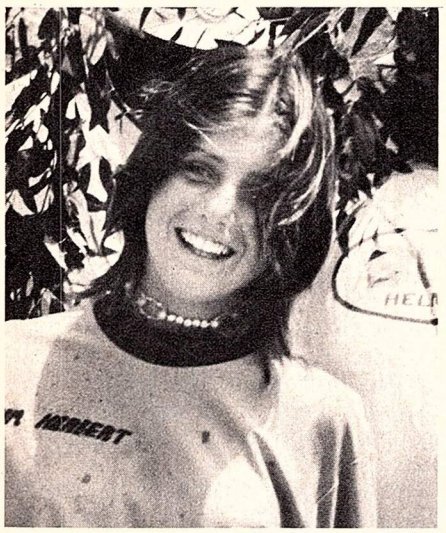
No, it's not post-hypnotic suggestion. They are now successfully using acupuncture at some of the thoroughbred racing farms. And you can't hypnotize a horse!

Or can you?

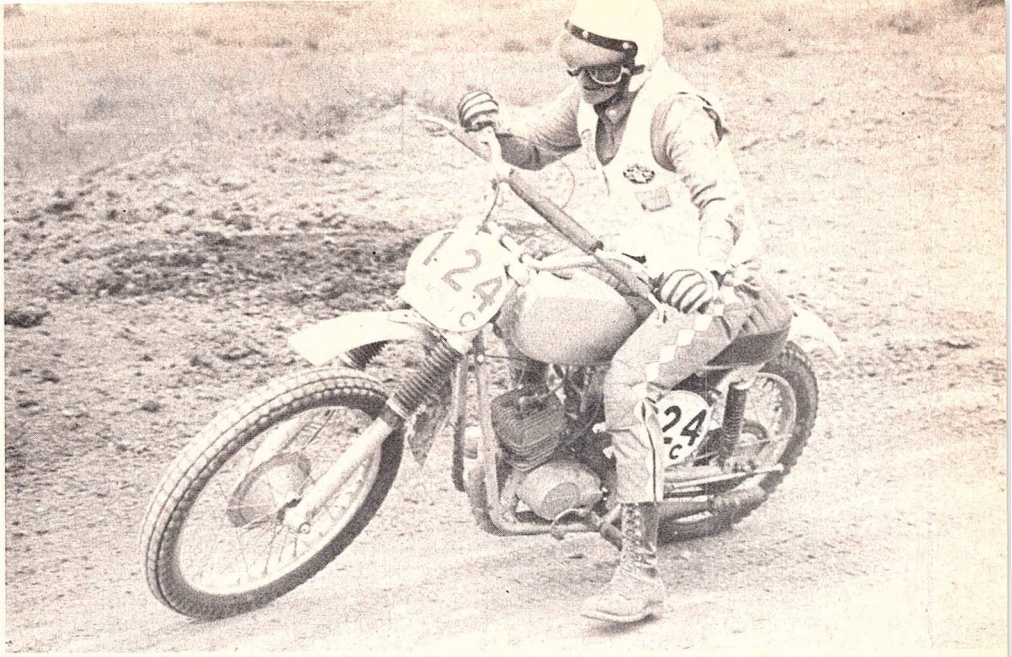
ALL I WANT FOR NEW YEAR'S IS A POWDER PUFF CLUB IN MY AREA

That may well have been the cry of every Powder Puffer across the nation, judging from the mail I receive. Remember when I asked for the names and addresses of any and all girls' clubs from Tupelo to 'Frisco? All I got was oodles of letters from girl riders pleading for the same information. The name of the girls' club in their area! Florida, Kansas, South Dakota, Idaho, you-name-it!

SO-O-O, if you know of any clubs locally, help your sisters out by relaying the info to me so I can pass it along in print.



One of the littlest End Does, 15 year old Kim Herbert just won the Four Aces Grand Prix at Muntz. And there were over 40 Powder Puff entries.



Diane Connolly of the Powder Puff Association scoots right along. Once TT oriented, the club is now switching to motocross.

And, if there is no club in your area, *start one!*

Meanwhile, here are the addresses of the clubs in Southern California. Anyone interested in joining or starting a chapter in their area should contact one of these clubs directly. They are all really keen gals, avid racers, eager to help, and anxious for new members.

DESERT DAISIES
Attn.: Joy Malis, Secretary
4707 W. L-2
Quartz Hill, Calif. 90079

Obviously the Desert Daisies are desert oriented. These girls ride everything from European scrambles to the Baja 1000 and Barstow to Vegas. The Daisies seldom pit together, preferring to pit with the club to which their husband or boyfriend belongs to-the Checkers, or Los Coyotes, or San Gabriel Club, or some of the other great guys' clubs. Keeps family problems down to a minimum thataway. Especially when you consider desert racing involves an entire weekend.

The Daisies are rolling out the welcome mat for new members. Just write. They have application forms all printed up and everything. They meet on the second Wednesday of each month and are much involved with earning their A.M.A. District points.

By-the-way, if you've never sat around the mellowness of a desert campfire the night before or after a race—Wow! Put that on your list of things to do.

END DOES MC
P.O. Box 2253
Canoga Park, Calif. 91306

The End Does are motocross oriented, but the girls can race desert or flat track or speedway or anything else. This club is really growing now. Lots of fresh, new, gung-ho members. They meet twice a month on the first and third Wednesday. One meeting is purely business, and attendance is compulsory under pain of having to start the next race *backwards* if you don't phone in a good enough excuse ahead of time. The other meeting is purely social where members bring their husbands or boyfriends or kids or whatever, and bench race or show racing movies of the girls or have guest speakers.

Like Russ Darnell brought some great films of European racing one evening. He slowed certain portions down and repeated them so we could watch Joel Robert, in slow motion, show the other guys how to do it.

Oh, yeah. You may have noticed that the End Does have a P.O. Box. Mailing address remains the same even though the officers change from year to year.

POWDER PUFF ASSOCIATION
1200 Goodman Ave.
Redondo Beach, Calif. 90278

The Powder Puff Association used to race primarily TTs, but since they seem to be fading from the scene, the girls now concentrate on Grand Prix and are getting heavy into motocross. They also put on one TT race each year on Mother's Day. Next year will be their 7th Annual event. This Association is also very much on top of the racing scene and anxious for new members. Their meetings are called at random whenever something important comes up.

That's for openers, kiddies. If there isn't a club in your area, I repeat, start one. The established clubs will be glad to help.

Have a racy New Year.

Way ta go. ●

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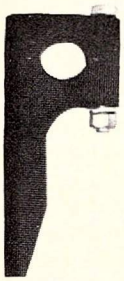

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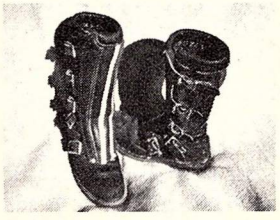

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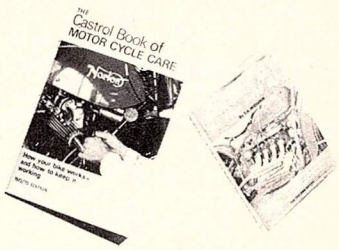
THE BOOK SHELF

A brief look at two recently published books and what their publishers have to say about them.



GOLDEN AGE OF THE FOURS

"Golden Age Of The Fours" is the title of a new book just released by the Bagnall Publishing Co., which features 15 different brands of 4-cylinder motorcycles. Feature chapters include: the Ace, "fastest motorcycle in the world" in its day, and the engineers who made it go; Henderson, first motorcycle to circle the globe, and holder of numerous transcontinental records — and the iron men who rode them; Militor, part motorcycle and part car; Belgium's FN, world's first commercially successful four; Denmark's unique Nimbus; Pierce, first American-made four; Ohio's Cleveland four; Springfield's famed Indian; England's popular Ariel Square Four, Brough Superior and Wooler. Another chapter covers some lesser known fours, such as the Gerhart, Matchless, Vauxhall and Wilkinson—with added coverage on some special-built sixes! The book also contains bonus chapters on how to find antique motorcycles, and, the case history on the restoration of a classic. Author of this priceless historical reference book is T. A. Hodgdon, a man who has spent his lifetime in the motorcycling field.

"Golden Age Of The Fours" contains 164 pages, with over 150 photos and illustrations, and measures 8½ × 11 inches. Softbound (paperback) edition is $6.95. Hardbound (simulated leather, with dust jacket) edition is $9.95. Both prices are postpaid (4th class). For priority air mail service, add $2. Order from: Bagnall Publishing Co., Dept. MC, Box 507, Lake Arrowhead, CA 92352.

THE CASTROL BOOK OF MOTORCYCLE CARE

"The Castrol Book of Motorcycle Care," a 65-page softcover book which tells everything you should know about your cycle—how it works and how to keep it running right—is now available from Castrol Oils Incorporated, the Hackensack, New Jersey-based firm.

The book, priced at $1.95, contains twenty fact-filled sections to provide thorough coverage on everything from cycle frames to trouble-shooting a cycle engine. The different cycle makes and models are compared, their engine parts and assemblies described and explored in this complete and up-to-date manual. It offers practical tips such as: a simple test that measures chain wear; what to do first when your cycle engine doesn't start; and how a magneto differs from an alternator.

"The Castrol Book of Motorcycle Care" is generously illustrated with photographs, diagrams and cutaway views. Individual chapters deal with subjects like: steering and suspension, four-stroke engines, two-stroke engines, lubrication, electrical systems, transmission, chains, control cables and other items of importance.

The book has a convenient checklist of maintenance steps to be taken by the motorcycle owner on a daily, weekly, monthly, quarterly, half-yearly and yearly basis. For instance, Chapter 18 recommends the following steps on a weekly basis (or at 250 miles).

"Clean machine: the only sure way of discovering whether any nuts or screws have worked loose—tighten, don't over-tighten—where necessary. Check engine oil level, tire pressures, rear chain adjustment. Lubricate cables. Top up battery, if necessary, and wipe battery top clean and dry. See that all lights are working. On disc-braked machines with hydraulic brake operation, make certain the fluid level in the master cylinder(s) is correct."

"The Castrol Book of Motorcycle Care" has been produced to help the new rider get the best from his machine. Used intelligently, it can save the reader time and money, and possibly frustration as well, by showing him how to avoid trouble on the road.

This compact handbook is available through your Castrol dealer or by sending check or money order for $1.95 to Castrol Oils Inc., Dept. MC, Continental Plaza, Hackensack, NJ 07601. ●

LETTERS

NEEDS A TEST

I think that you have a great magazine, so keep up the good work. I own and race a Yamaha JT-1 Mini Enduro. Could you tell me if you have ever done a test on this bike?

Could I also have your opinion on what bike would be the best for motocross and scrambles: a Yamaha 100 MX or a Hodaka Super Rat?

Marty Comber,
Windsor, Ont., Canada

We did a test on the Yamaha JT-1 shortly after the machine became available to the public. We liked it then, but things have changed in the years that have gone past since then. There are now better minicycles available! Because of our size, we tend to favor the Hodaka Super Rat. Did you get that, Marty? BECAUSE OF OUR SIZE! That's the only factor that makes us pick the Hodaka over the Yamaha. Both bikes are fast and have a reputation for reliability. We pick one over the other because it "fits" us. I suggest you try both of these machines, and then make your decision based on the same criterion. Buy the one that suits you—not us—best.—ED.

NEEDS A JOB

I was wondering if there would be any hope of getting a job as a test rider for your magazine? I don't live in California and I don't ride at Indian Dunes every day.

I live in Connecticut.

You never hear about any hot new bikes being tested around here. But I think your magazine would appeal more to the New England states riders if it had something in it about their own terrain.

I've been riding for seven years, and I'm particularly interested in motocross. I've had one racing bike, and I now have a Honda 100cc which I've converted to the hottest 100 around. I think I can handle any 100-125cc motocrosser or enduro around. I've ridden many racing bikes and done quite well on them.

I have my own track (motocross) and practice around four hours a day. Although I do not race and never have, I ride with my friends, who do, and quite ofen I beat them.

Tim Mack
Rockville, Conn.

Sorry, Tim, all of the road testing jobs are filled, but keep practicing. You never can tell what may happen.—ED.

ISDT HORSE

The Editor talked about running this as the lead shot for our ISDT story, but he couldn't convince the Art Department that he was serious. Schoonmaker and Swift share the photo credit. Neither will 'fess up to who took the shot, although Drivel kept mumbling something about Henri Cartier Bresson and not cropping the photo while looking awfully smug about the whole thing.

WIN A MOTORCYCLE

Or a two week all expense paid vacation with Miss Modern Cycle. How? Pick up a copy of next month's issue and read all the details. All we can tell you right now is that there will be numerous prizes of inestimable value, plus the public acclamation of seeing your name in print, commended for a job well done. Other boffo things in next month's issue will include an exclusive test of the 1968 DT1 Enduro, a lengthy interview with Whistlestop Busby, and an article on how to hop-up your GT1 for road racing. You can't afford to miss our next big one. Watch for it.

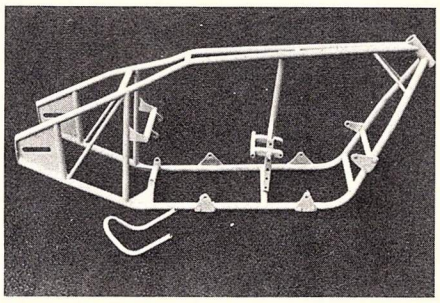
NEW PRODUCTS

FIRST AID KIT

A handy, lightweight, pocket-size, first aid kit for snowmobiler, cyclist, all-terrain vehicle operator and motorist emergencies has been made available by Intercontinental Lubricants Corp., Branford, Connecticut, marketers of Spectro performance lubricants.

Identified as the Golden Spectro Travelers Quick Aid Kit, the compact (5¼″ × 3¾″ × 1⅞″) plastic box with hinged snap-lock cover contains medical supplies for on-the-spot safety use. Its personal health care items include an assortment of adhesive bandages in three sizes, J & J antiseptic pre-moistened towelettes, Tylenol (acetaminophen) pain relief tablets and a condensed guide: "First Steps to First Aid."

In the interest of promoting travel safety, the kit is available by writing the Marketing Dept., Intercontinental Lubricants Corp., 118 No. Main St., Dept. MC, Branford, Conn., U.S.A. 06405 and enclosing $1.50 to cover packing, postage and handling.



KAWASAKI DRAG FRAME

The all new 4-cylinder Kawasaki 903 is being recognized as an engine with tremendous performance potential. In keeping with these thoughts, Chapman Performance Products has already built a drag racing frame which houses two 903's.

These frames will be available in two versions, one for use with the standard Kawasaki transmission and one for use with a planetary two-speed. In either case these frames feature all 4130 chrome moly construction using heli-arc welding by Chapman's "SEMA" approved shop. The neck angle is 40° with a 69-70-inch wheelbase and 4″ of rear wheel adjustment is provided.

The motor mounts are an integral part of the frame's construction and the rear section is wide enough to accommodate a 5.50 × 15 drag slick along with a disc-brake caliper and an offset sprocket. Also included, but not attached, is a seat hoop.

For more information on this and other performance related items, send $1.00 for the Chapman catalog. Chapman Performance Products, Dept. MC, 1505 Birchwood Avenue, Des Plaines, ILL 60018.

CUSTOM VAN SEATS

Ever notice how miserable factory seats are? Well, Rich's Product Development & Distributing Co. has perfected their own high back bucket seat, with woven cloth or vinyl inserts laid over a loose weave foam, for that sunken in custom fit. The seat is contoured to fit perfectly, with precision ball bearings, 360° swivel pedestals, and lock control positioning yielding to your every move. The arm rests are also independently controlled to move in any position to suit your mood. These seats list for $115 each. Colors Available: Black with matching woven vinyl insert. Light or Dark Brown with matching woven vinyl insert. Blue or Green with colorful matching cloth insert. For information write: Rich's, P.O. Box 831, Dept. MC, Woodland Hills, CA 91364.

KIDNEY BELT

ANCRA Corporation, the people who brought a complete line of "aircraft quality" tiedown equipment to the motorcycle industry, is pleased to announce the availability of a new Kidney Support Belt that gives the wearer comfort along with positive support.

This is accomplished by utilizing breathable vinyl. The vinyl has tiny vents that allow constant ventilation to the skin. In addition, a thick foam rubber backing, lined with a smooth nylon fabric, is bonded directly to the vinyl, giving soft, as well as, cool support.

All of these features, combined with a heavy-duty zipper, provide for a long-lasting, comfortable and lightweight Kidney Support Belt at a low cost.

For further information on this, or any other of ANCRA's products, contact the ANCRA Corporation, P.O. Box 891, Dept. MC, El Segundo, CA 90245.

NEW VAN RACK

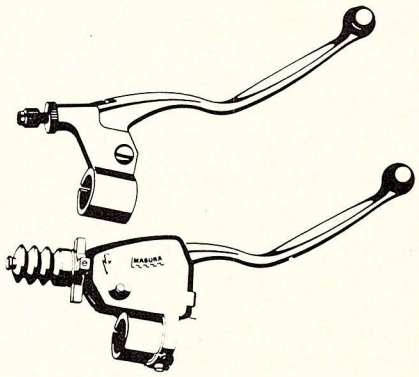
For the biker on the go, International Cycle House introduces their new motorcycle adjustable van rack. Designed for traveling, the heavy duty rack holds three bikes, with loads of room between (you can stash five gallon gas cans between the bikes).

The van rack has built-in tie-down loops to hold two bikes facing front and one facing the rear. When not in use, the rack folds down flush with the floor of your van.

Constructed of heavy duty, square tubed chrome-molly, this new and sturdy rack can be adjusted to fit any size van. In minutes, the entire rack can be disassembled for compact storage. Now available at the suggested retail price of $34.95 from International Cycle House, Dept. MC, 4212 Lankershim Boulevard, North Hollywood, CA 91602.

NEW LEVERS FROM MAGURA

Suzuki Fun Center's mail order house is announcing the availability, by same day mail order service, of the all new Powr-Lever Brake and Clutch Levers. The segment of the lever that the middle and index fingers normally grasp is ⅓ of an inch closer to the grip, thereby making the lever both easier to reach and easier to pull than conventional lever shapes. Manufactured from forged aluminum that is both super light and virtually unbreakable. Priced at $7.50 each for the Standard levers, and $10.95 each for the 6-Day levers. From: Suzuki Fun Center, 515 N. Victory Blvd., Dept. MC, Burbank, CA 91502.



TOTAL PERFORMANCE CARBURETOR

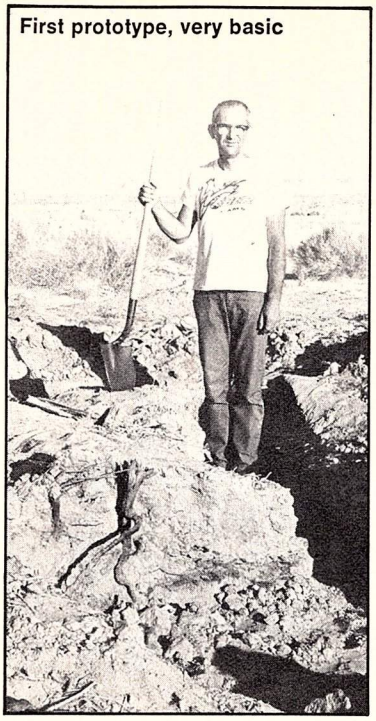
The Lake Injector carburetor is available for two cycle, four cycle, and rotary engines. The units come with a sleeve mount or a universal patented flange in three different sizes.

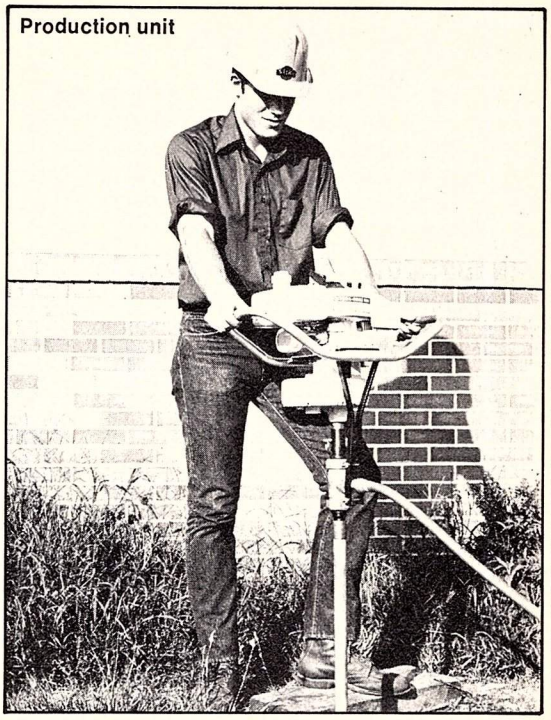
The body design, plus the velocity stack, in unison with the throttle slide forms a venturi which enables the injector to achieve a more perfect fuel/air mixture than normal carburetors. The Lake Injector functions as follows: The slide, operated by a throttle cable, is raised and lowered to increase or decrease the flow of air. The fuel induction pipe is raised or lowered, with the slide, which increases or decreases the flow of fuel. The correct mixture is obtained by adjusting the patented needle while the engine is running so that the proper amount of fuel is mixed with the air flow in the venturi. This constitutes only three moving parts. There are no float bowls or levels, also no primary, secondary or main jets with which to be bothered. This allows for simplicity in tuning and the ability to fine-tune the carburetor for optimum performance and increased gas mileage.

Three different lengths of spigot tubes and bells are offered along with additional needles for tuning for the total performance-minded individual. Filters are also available for each model of carburetor.

Write: International Engineering/ Distributing, Inc., Dept. MC, 13240 Northrup Way - Unit #23, Bellevue, Washington 98005.

NEW Product of the month


First prototype, very basic


Production unit

DO-IT-YOURSELF WELL DIGGER

Second large prototype

"A wonderfully handy, low cost, new invention now makes it possible for anyone to drill his own water well at a cost of about 10¢ per foot." That's what it said in the press release that mysteriously appeared here one day. Does this mean that you can trade in your old DT1 for a 3000-foot well? What about old Triumph owners? Can they expect to hit oil while digging for water?

The one-man portable outfit is called Hydra-Drill 200, and it is designed to drill small diameter water wells to a depth of 200 feet (that blows the 3000-foot well) at speeds up to 40 feet per hour. They say it is so economical that it can pay for itself the first time or two it is used. (Economical as compared to what?)

Our own Editorial Landscape Director, featured just last month, was involved in developing the Hydra-Drill, even though the two prototypes he developed were later abandoned for the present production model.

The drill is also suited to the heavy duty use required by engineers and contractors, and it provides excellent core drilling (whatever that is) at a low cost.

The gasoline-powered Hydra-Drill 200 (the release didn't specify pre-mix or oil injection) can be carried anywhere and operated where large, truck mounted equipment could not be used. This also makes it ideal for desert racers with a poor sense of direction who plan on crossing Death Valley in August. Rumor has it that J. N. Roberts and Rolf Tibblin have drills bungied on the back of their Huskys.

The complete Hydra-Drill 200 with 50 feet of drill stem and an assortment of tungsten carbide bits is priced at $345. Seems like a fair price when you consider what Yamaha wants for their YZ 250.

A free brochure and information on how to find water on your property is offered by the manufacturer, DeepRock Mfg. Company, 2000 Lafayette Parkway, Opelika, Alabama 36801. When you write to them, ask what Opelika means and why they sent their press release to *Modern Cycle.*

CHARLOTTE

Report and Photography by Steve LeHuray

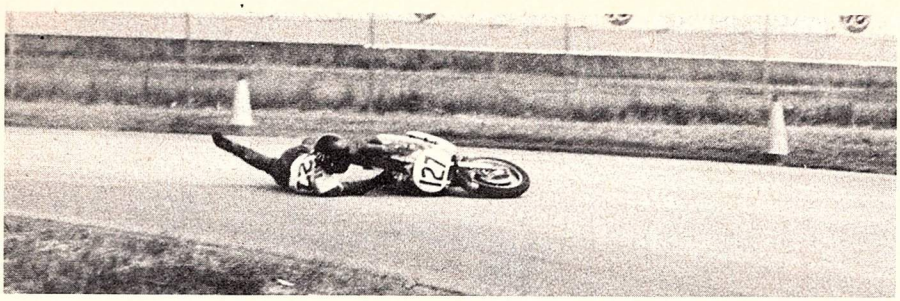
It wouldn't seem right if the world's fastest rubber ball didn't win at least one race a season.

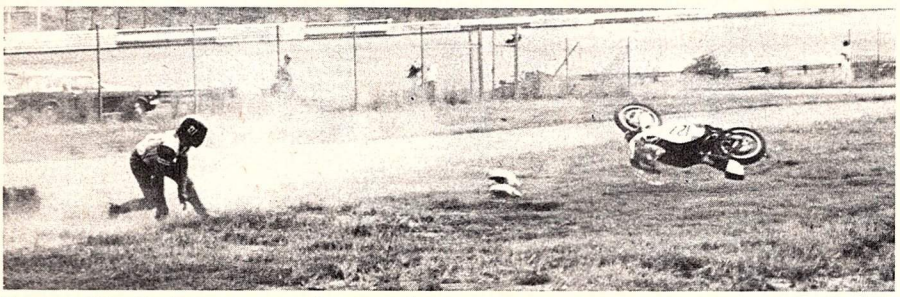
Almost everybody who knows anything about racing knows that the American South is one of the really big strongholds of racing, all kinds of racing. Stock car racing flourishes nowhere else like it does in the South, where they have all those big super speedway tracks like Daytona, Talladega and Charlotte. There is a little bit of sports car racing, a lot of enduro and motocross races, and many Saturday night stock car races run on dirt tracks throughout the South. And there are two or three motorcycle road races every year: Daytona, Road Atlanta, Talladega, and now Charlotte Motor Speedway has been added to the national road race schedule this year with a 75-mile race for Experts.

The Charlotte race is the next to the last race held during the AMA's seven-month road race schedule that includes nine road races. Most of the riders and their machines looked tatty and tired from just not having enough time to look after themselves or their race bikes. The rider entry in all classes for the Charlotte race (only 36 Experts signed up for the main event) was down in contrast to the hordes of riders that showed up at Daytona way back in March. Back then you had to qualify to make your main event (whether Expert or Novice), but that was not the case for this weekend's races, everyone who showed up made the main, running in heat races only to qualify for a grid position. But that's the way it is every year, the season comes on strong, then tapers off at the end to a handful of enthusiastic die-hards who are either chasing points or else racing because they can't get enough of it.

The Charlotte show was a good one even though not too many spectators turned out to witness the spectacle. There were a few complaints about the condition of the track, especially the turn that brought the riders out of the infield and back up onto the banking. The turn offered three different gradations to challenge the riders before they straightened out and continued on around the banking. This one turn in particular was the downfall of many riders in each of the four races held over the weekend.

Even though the Expert ranks were down in size, the same wasn't true for the Novices, who turned out for their Saturday morning heat races like nervous young gladiators. And as is usually the case with Novices, they had more than their share of crashes during the day, but some blame must be laid to the tricky and dirty turn three. Anyway, Jay Levingston continued to prove that he is this year's top Novice road racer, as once again he ran away with the fifty mile race for first year





Novice Otto Fuchs was one of many who came to grief in the Novice race.

professionals. Levingston had some opposition from Richard Clutts and Bill Peters in the early stages. But that tricky turn three took out Clutts, who crashed while holding a good lead over Bill Peters. After Clutts's misfortune, Peters inherited the lead which he held for three-quarters of the race. But Levingston had the necessary stamina to keep up a fast, steady pace. So as Peters faded, Levingston took over the lead to win by a safe margin. Peters held second place and Ron Mass rounded out the winners circle with third.

As the Novices were pulling off the track the lightweight Junior-Expert Combined race was pushing out onto the pre-grid. This season Yamaha's domination of the 250 class has been challenged (unsuccessfully) by the 350cc singles from Team Kawasaki, with Yvon DuHamel being the leading force on the track behind this attack. DuHamel's Kawasaki has lacked in straightaway speed but he has been able to compensate in the corners, with his lighter and better handling Bighorn. The lightweight race began with the first of two five lap heats.

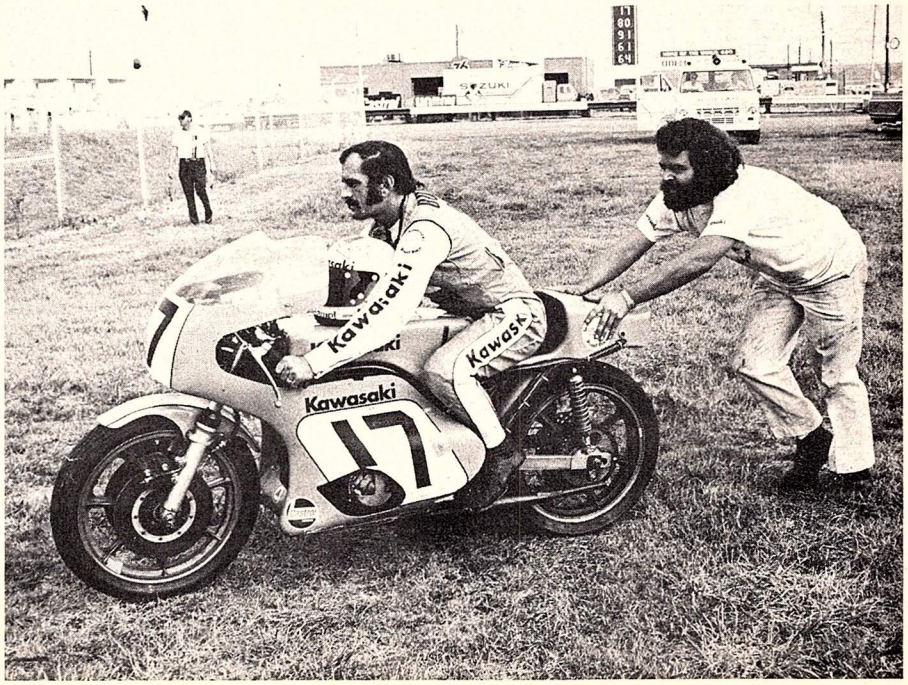
Gary Fisher led the pack away from the start of the first heat with Junior sensation John Long in tow. Fisher's black and yellow factory Yamaha had the horsepower advantage over Long's self sponsored red and white TA-250. But Long is an exceptional rider, and will be a force to be reckoned with in coming years. While Fisher streaked away down the straight, Long pushed harder and deeper through the twisty stuff to shorten the yardage on Fisher. As the last lap flag was given Long took to the front ahead of Fisher and held on to take the heat win, but not by much. Steve Baker, from Washington, finished in third, just behind the scrapping Long and Fisher.

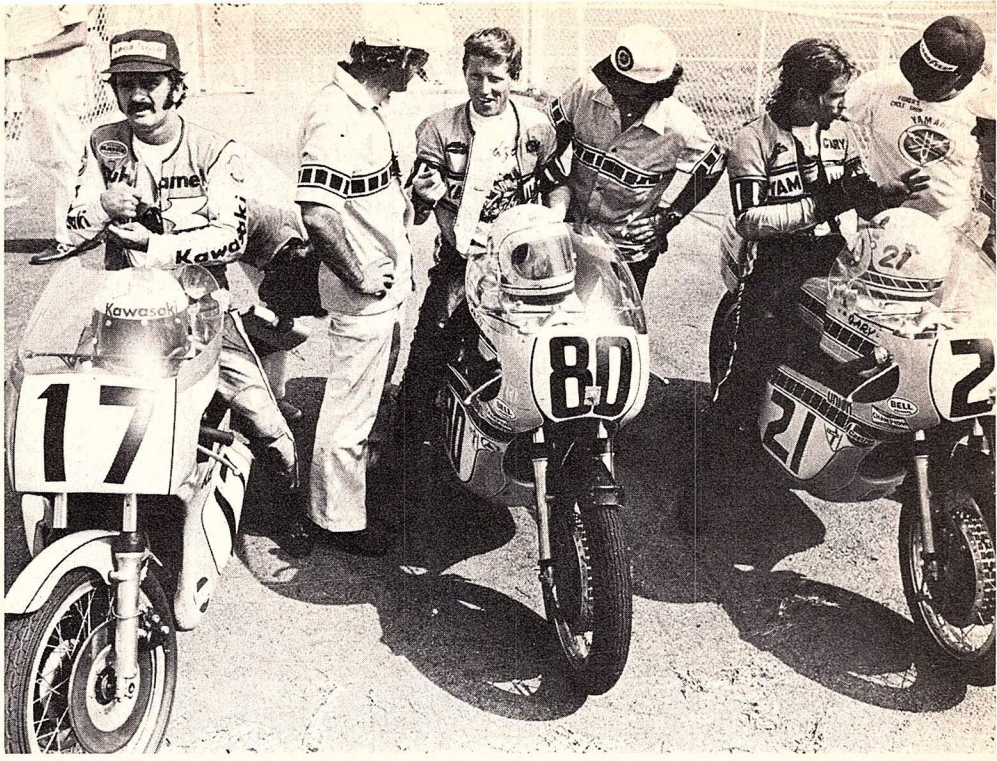
Kenny Roberts left no doubt in any one's mind that he was a prime contender for the main event, as he streaked past Don Castro to move into the lead on the first lap of his heat race and then disappeared. Castro was soon displaced from second by Canadian rider Jim Allen. Allen made a valiant attempt to catch up with the fleeting Roberts, but the five lap heat was too short to mount any serious challenge, so Roberts went on for the win. Allen was second, and Don Castro held Gary Nixon's bid at bay to take third.

The main event had quick starter Don Castro ahead of the pack into the first corner. But his lead was short lived. As the field dropped off the high banking into the infield, Gary Fisher took over the lead from Castro with teammate Kenny Roberts running a very close third. On lap three Jim Evans got into a wobble exiting the infield and went down, spraining his right wrist in the process. John Long narrowly squeaked by between the Armco barrier and the tumbling Evans. But poor Jim Allen, who was following right in Evans path, was not so lucky. Allen center punched Evan's bike, and went sprawling onto the track. Luckily neither rider was seriously hurt, but both bikes were severely damaged, with Allen's coming out the worst for wear.

As lap ten reeled by Roberts was catching up with Gary Fisher. On the following lap Roberts made a successful bid to get by Gary in the infield. No one had been paying too much attention to Yvon DuHamel

Steve Whitelock pushes DuHamel to the winner's circle.





Kenny Roberts tells Kel Carruthers all about the win in the 250 race. Yvon DuHamel was second and Gary Fisher third.

and his green Kawasaki Bighorn single. Yvon had gotten a bad start, and was working his way up through the pack at an unbelievable rate. With the race not even half way over DuHamel was trying to take second away from Gary Fisher.

Poor Yvon, he had an impossible task to perform. His Kawasaki was clearly lacking in horsepower compared to Fisher's Yamaha twin. The Kawasaki's handicap was evident as they went down the long Charlotte straights. The Yamaha would just motor away from DuHamel, gaining yardage by the fistful. But, in the tight, twisty infield, DuHamel was making mincemeat out of Fisher's black and yellow Yamaha. So for eleven laps Fisher and DuHamel went at it; Fisher having a large horsepower edge while DuHamel was riding to perfection. On lap 21 Fisher could no longer make up ground on the bowl. DuHamel was gone, and he was gone after Roberts.

Yvon had the same handicap, only more so, as he chased after Roberts. But still he was closing up space on next year's Number One. But the clock ran out for Yvon as the fifty miles were completed. It was a close one though—just one more lap and Yvon might have done it to the all mighty Yamahas.

Sunday rolled around, and the stands were starting to show better response than the day before, but then maybe the spectators were only interested in the big one. But first they had to watch the Junior race. And they should have been thrilled because as the action packed Junior race got underway, Californian Mike Clarke shot into the lead on his water-cooled Yamaha. Clarke maintained his lead for two laps then threw it all away by running off the course at turn four. Clarke recovered quickly, and got back into the fray immediately, but by then it was too late. John Long and Pat Hennen had skated on by.

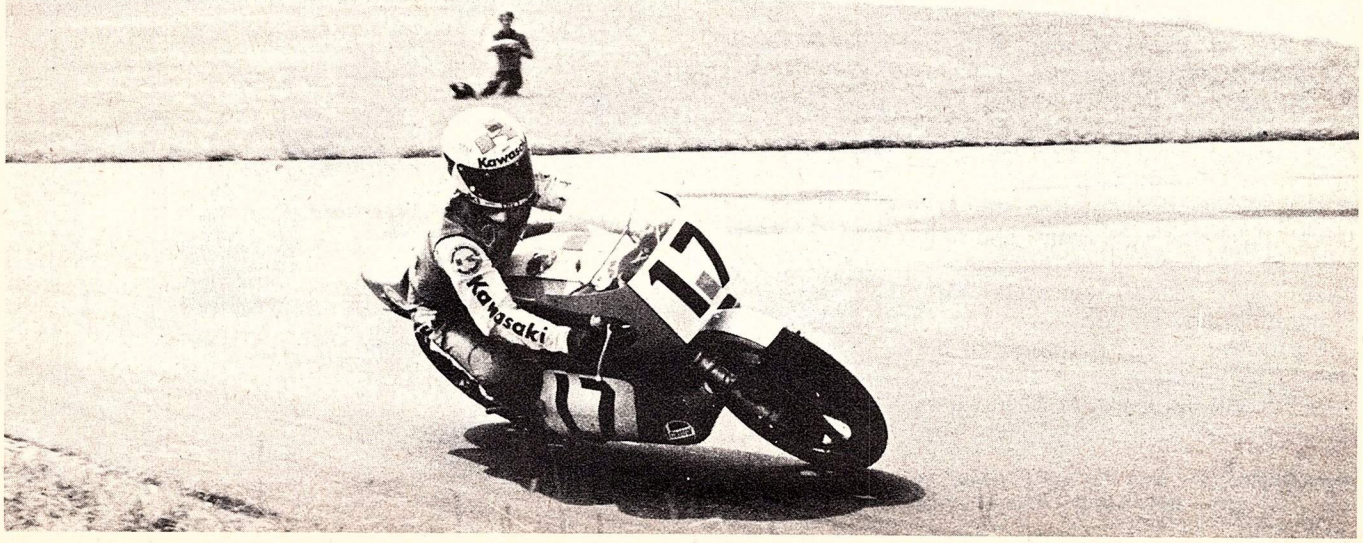
DuHamel finished the race with no one else even in sight.

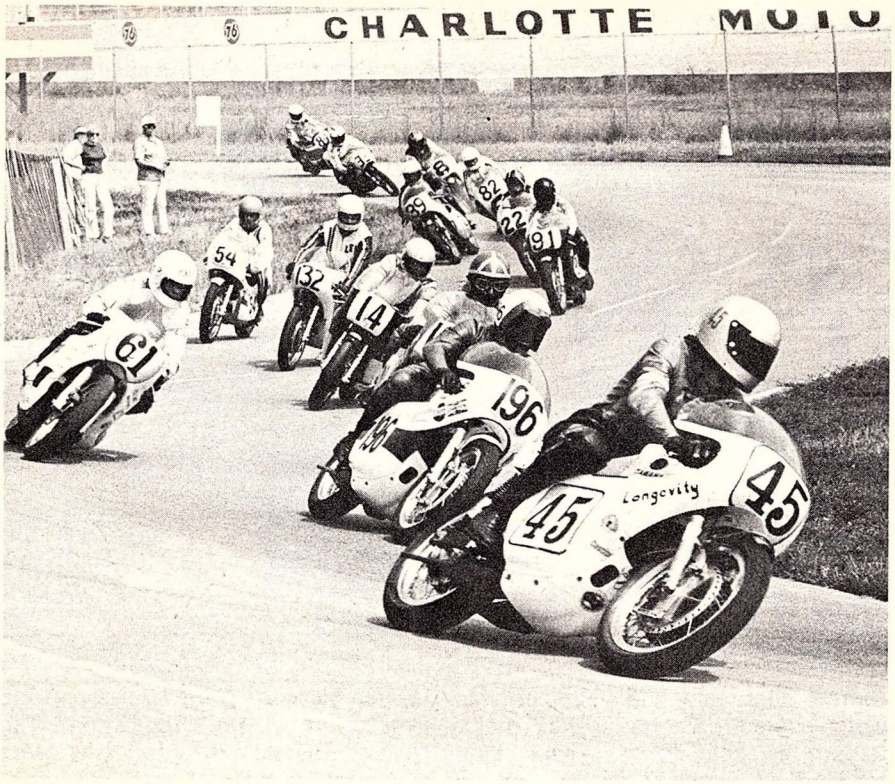
By the eighth lap things had settled down to the point of looking like another John Long victory. But then, while lapping a slower rider, Long was forced off the road at the same turn four that had claimed Mike Clarke's lead earlier. Long quickly got back into action, but found that Pat Hennen was in first with a five second lead.

At the three-quarter mark the order was Hennen, holding a narrowing lead over Long, who had a very large lead over third place rider Peter Chauncy. Just behind Chauncy a furious battle was going on for position between Dennis Purdie, Dennis Varnes, Scott Brelsford, Bob Endicott and Tim Rockwood. The racing was so stiff that they were swapping places at virtually every turn for the entire 50 mile race.

On lap twenty-two it was Pat Hennen's turn for misfortune as he fell off his Suzuki while taking that tricky infield exit back onto the banking. Hennen was okay, but did not restart. Now John Long reinherited the lead and looked all set to coast home for the win, as there was no opposition to challenge his victory. But the gremlins must have been after Long today — because once again, Jong Long crashed his Yamaha! John picked up his bike and restarted, but pulled into the pits calling it a day.

So, there was Canadian Peter Chauncy to pick up the pieces. Chauncy, riding a fast consistent race, found himself in the lead with only three laps remaining. All he had to do was sit tight and it was his





The Junior favorite, John Long (45) crashed twice in his race.

ball game. Chauncy did exactly that. Denny Varnes took second, and Dennis Pirdie broke up that four-rider duel for third, while Scott Brelsford brought his factory sponsored Harley-Davidson in for fourth.

With all of the secondary races finally out of the way it was time for the big one, the 75-mile National that the 8,000 or so fans had come to see. But first there were the heat races. Just like all the other races, the heats were of five lap duration. Because of the low Expert entry, the semi was not required. The heats were for grid position.

There was no doubt who was at the front of the pack as the first heat got underway. Yvon DuHamel had everybody's attention as he wailed his "green meanie" Kawasaki around the two mile circuit. DuHamel's nemesis all season, Gary Nixon, was left at the start line with a faulty ignition system. Paul Smart's motor loaded up at the start, causing him to be left behind waiting for his Suzuki to clear out. When the big three finally was right Smart charged through the pack at an outrageous pace, with fellow teammate Ron Grant following in tow.

But DuHamel was not about to be caught by anybody as he blitzed his way through the five laps. Smart and Grant unbelievably worked their way up to second and third at the end of the heat, with Kenny Roberts and Cal Rayborn fourth and fifth.

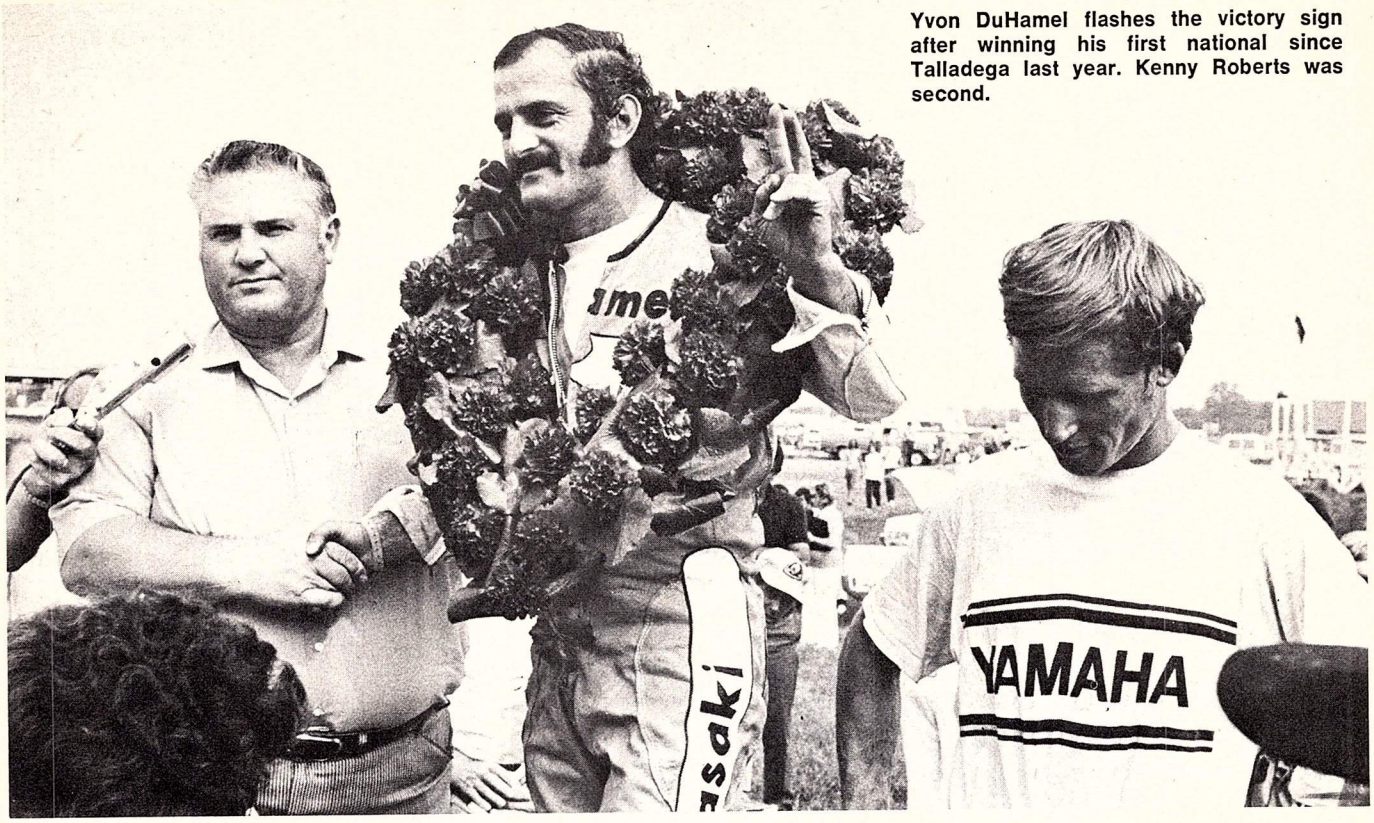
The early laps of the second heat looked like a Kawasaki fly-over as Art Baumann took the helm on the first lap with Hurley Wilvert and Cliff Carr nipping at his heels. Fred Deeley Yamaha rider Steve Baker was lying in fourth behind the Kawasaki trio. Baker appears to be a future contender for road race stardom. He had shocked the established leaders at Talladega two weeks earlier by finishing second to Kel Carruthers in the 200 miler there.

As Art Baumann completed his third lap his string of bad luck continued, this time with another seized motor. Cliff Carr and Hurley Wilvert were right there to take over from Baumann. But when Baumann's motor seized he was coming into a tight left hander, and when Carr and Wilvert moved to the right to avoid the slowing Baumann, Baker seized the opportunity to dive his nimble Yamaha under both of the Kawasaki riders. So, with only one lap remaining, neither Wilvert nor Carr could catch the fleet-footed Baker. The Washington youngster went on to win the heat with Wilvert second, Carr third, and Don Castro a distant fourth.

Now the curtain was drawn for the showdown act. DuHamel had set the fastest time in his heat, 101.286 compared to Baker's 100 mph average. The heats showed that the Charlotte course seemed to be well suited to the Kawasakis, and the 75-mile race distance might be an advantage for the short-fused green streaks. But the Yamahas had the reliability and the numbers, as well as the speed to do the deed. Suzuki, although plagued with problems all season, wasn't counted out of the running either.

You could feel the excitement in the crowds as the bikes were finally started as the five minute countdown progressed. The one minute board went sideways, and moments later Yvon DuHamel swept into the lead with teammate Cliff Carr running second. Hurley Wilvert and Don Castro filled out the third and fourth spots ahead of Suzuki teamster Ron Grant. Art Baumann and Gary Nixon both dropped out of the race early. Art with another seized engine. The Kawasaki crew had installed a brand new motor in Art's bike, replacing the one that had seized up in the heat. The new engine, with no run-in time on it, simply choked up. Gary Nixon continued to be plagued with electrical problems as he dropped

Don Castro (11) was the early leader in the 250 race, but Kenny Roberts (80) won easily.



Yvon DuHamel flashes the victory sign after winning his first national since Talladega last year. Kenny Roberts was second.

Gary Fisher and his dad, Ed Fisher, wearing the sunglasses, talk strategy with one of the Yamaha mechanics.

out in the early going, never really in contention. Another early casualty was Englishman Paul Smart. Paul had a flat tire on his Suzuki, the third of the weekend. And Steve Baker, the second heat winner, went out when his Yamaha threw its chain while running in fifth place and moving up on the leaders.

Up front Cliff Carr was using some cagey race strategy, just hanging back waiting for the later stages to make his move on Yvon. But as luck would have it with Cliff, and his always seems to be bad, Carr's transmission lost second gear. This cost him the ability to drive out of the low speed corners. As Car slowly dropped back Kenny Roberts moved up to take over second. Then Hurley Wilvert used Carr's disadvantage to move into third, while Cliff eventually dropped all the way down to seventh at the finish.

With the race in its final stages, Yvon DuHamel was easily heading for his first victory of the season ahead of Kenny Roberts and Hurley Wilvert. Ron Grant ran a consistent race for fourth, while Gary Scott took his Triumph past Don Castro on the last lap to secure fifth.

It was a very jubilant little French Canadian on the victors' podium picking up all of that Kawasaki bonus money after coming close so many times this season only to be thwarted by racing luck. But none of that mattered now as the champagne flowed. ●

RESULTS
CHARLOTTE NATIONAL
September 15-16, 1973

75 MILE NATIONAL

1.	Yvon DuHamel	Kawasaki
2.	Kenny Roberts	Yamaha
3.	Hurley Wilvert	Kawasaki
4.	Ron Grant	Suzuki
5.	Gary Scott	Triumph
6.	Don Castro	Yamaha
7.	Cliff Carr	Kawasaki
9.	Steve McLaughlin	Yamaha
10.	Jean Lysight	Yamaha

250 COMBINED

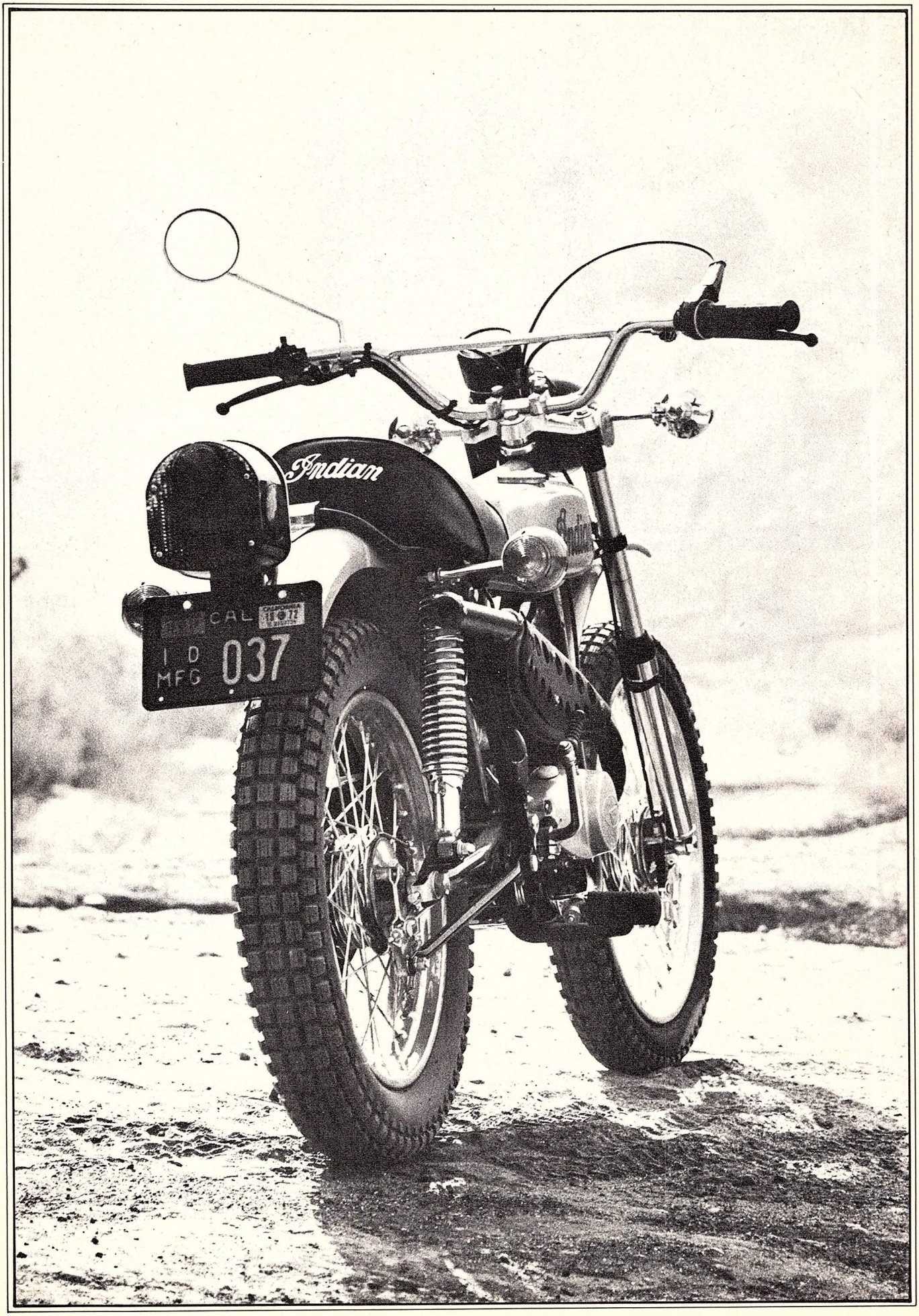
1.	Kenny Roberts	Yamaha
2.	Yvon DuHamel	Kawasaki
3.	Gary Fisher	Yamaha
4.	Steve Baker	Yamaha
5.	John Long	Yamaha
6.	Gary Nixon	Yamaha
7.	Don Castro	Yamaha
8.	Art Baumann	Kawasaki
9.	Steve McLaughlin	Yamaha
10.	Bart Myers	Yamaha

50 MILE JUNIOR

1.	Peter Chauncy	Yamaha
2.	Dennis Varnes	Yamaha
3.	Dennis Purdie	Yamaha
4.	Scott Brelsford	Harley-Davidson
5.	Tim Rockwood	Yamaha

50 MILE NOVICE

1.	Jay Levingston	Yamaha
2.	Bill Peters	Yamaha
3.	Ron Mass	Yamaha
4.	Ed Hansen	Yamaha
5.	John Gleason	Yamaha


Indian
CAL
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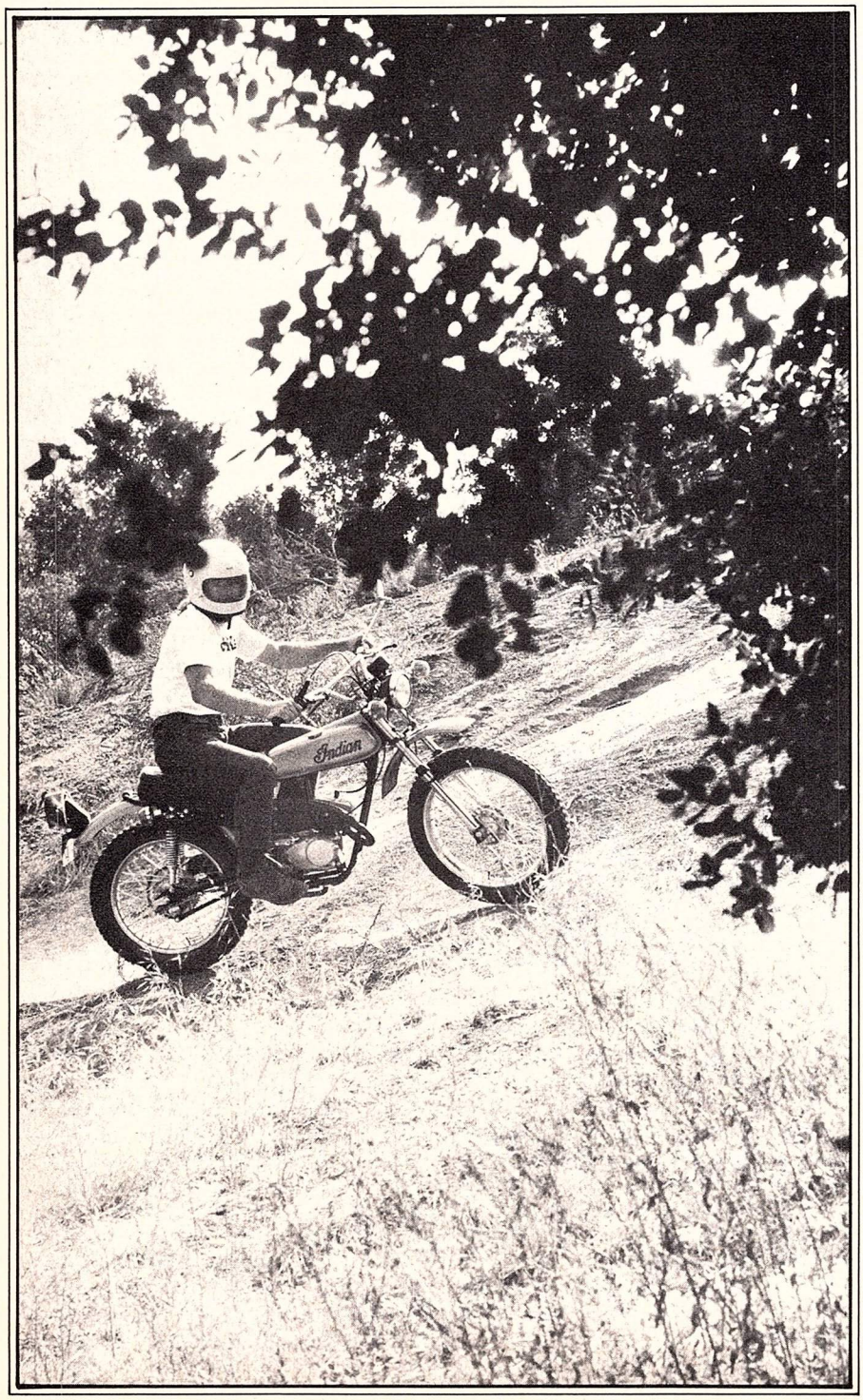
INDIAN ME 100

A rugged Eurasian-American alternative for the small displacement trail rider



The name Indian brings back fond memories of an era gone by—one-cylinder, two-cylinder, and four-cylinder machines that were used for sport touring and racing. For many years Indian and Harley dominated the market. That time is long past now, and the original Indians are classics. The manufacturer ceased production in the early fifties, although efforts are afoot in Springfield, Massachussetts, to revive the big fours with 1954 styling. In the past few years the name Indian became more than a nostalgic glimpse of the past. For many new riders the Indian represents a quick race winning mini-cycle rather than a full fendered once-you've-seen-one-you won't-forget-it big bore sport tourer.

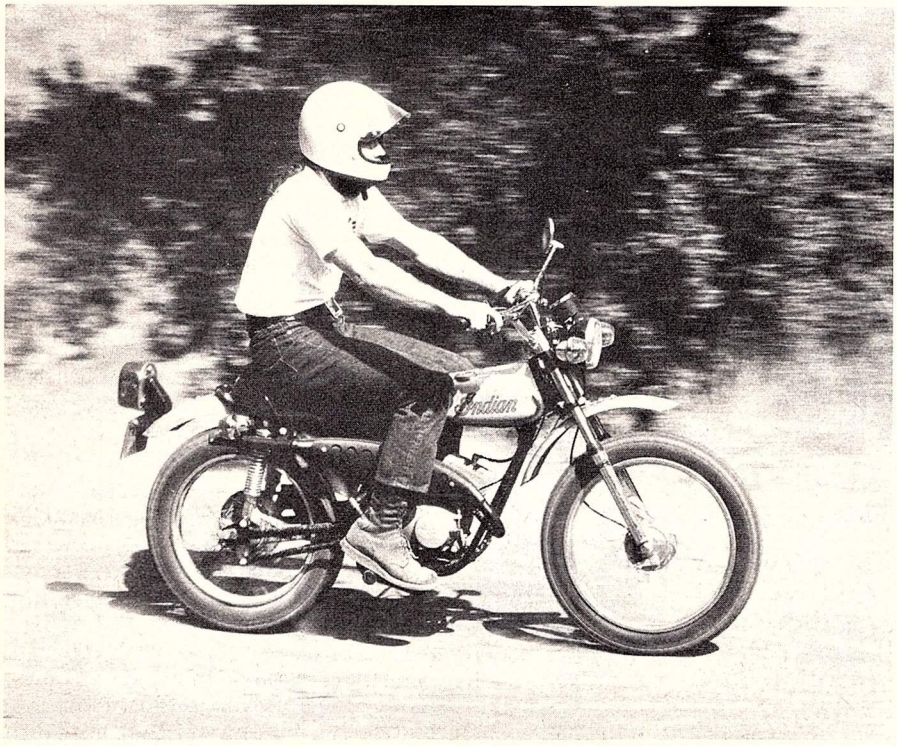
The new Indian company is based in Gardena, California, up the street a piece from American Honda. While management is United States-based, the bike itself is an amalgam of components from several countries. The mini-cycles are assembled in Taiwan (Republic of China), using the Japanese Fuji engine (also used on several other brands of mini-cycles), and various Italian components.

The Indian line now ranges from a mini mini, suitable for introducing a three-year-old to the sport, if you are so inclined, to full-sized 125s from Italy.

A new addition to Indian's line of cycles is the ME 100. This lightweight utilizes a Fuji engine with a displacement of 99ccs. The powerplant is a single cylinder two-stroke with a bore and stroke of 53x44mm. Carburetion is a 20mm Mikuni. This is a rather small-sized mixer for a 100 when you stop to consider the 125s are using carburetors from 26 to 32mm in diameter.

The air cleaner is a washable foam unit located in a canister connected directly to the carburetor. For general on-the-road use and light off-road riding, this type of air filter is adequate. If more time is spent off the highway, it is apparent that an extra amount of attention must be paid to keeping the air filter clean. Unlike the smaller Fuji engines, this 100 utilizes a five-speed gearbox. Provided the riding isn't too rough, we found the gear selection adequate. There is, however, quite a large jump between first and second. We didn't notice any excessive amount of shift lever travel sometimes found with the smaller engines. The shifting was positive, but a couple of shifts were missed. We could chalk that up to our unfamiliarity with the bike.

The clutch did not work properly during our test, even after much



fiddling. Regardless of how long the bike was ridden, or the fashion in which it was ridden, the clutch continued to drag. Tapping the shift lever down to first gear, with the clutch lever in, found the bike creeping or just plain motoring ahead. Because of this behavior, it was always necessary to select neutral before coming to a stop. Aside from this peculiarity, the clutch gave us no indication of slipping or overheating. The gearbox could be used without any undue effort.

The 100 required three or four kicks initially to get the engine running. Once warmed up, two kicks at the most were necessary. As with most two-stroke motorcycles, warm up time took no more than a few seconds.

Unfortunately, the Fuji 100 engine does not feature oil injection. Instead, it is necessary to pre-mix the gas and oil at a ratio of 20-to-1 to lubricate the moving parts in the top end. The bother of pre-mix is tolerable for a competition bike, but for a street legal trail bike it is a drag.

The frame used for the 100 is a tubular double-cradle type that more than adequately supports the engine and other components. The prefix ME, as in ME 100, is used to indicate multiple engine. In other words, Indian has several different engines that can be housed in this frame. They are the ME 74, ME 76, ME 100 and the ME 125. The 74 and 76 series are four-speed or six-speed 70cc engines made by Minarelli in Italy. The ME 100 is the Fuji engine from Japan. The ME 125 uses a larger Minarelli.

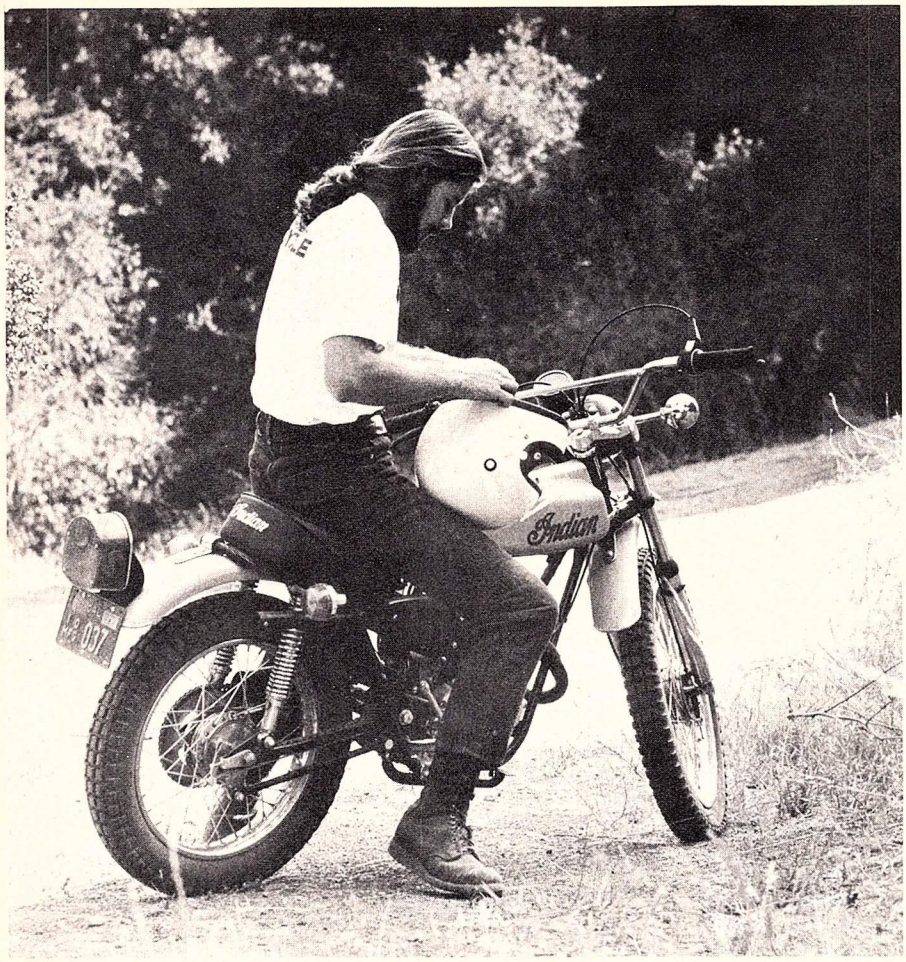
The handling ability of the frame is actually quite surprising. The fork angle of 30 degrees is a good setting for most cornering and high speed work. The frame comes equipped with a skid plate that does an adequate job of protecting the vulnerable underside of the engine.

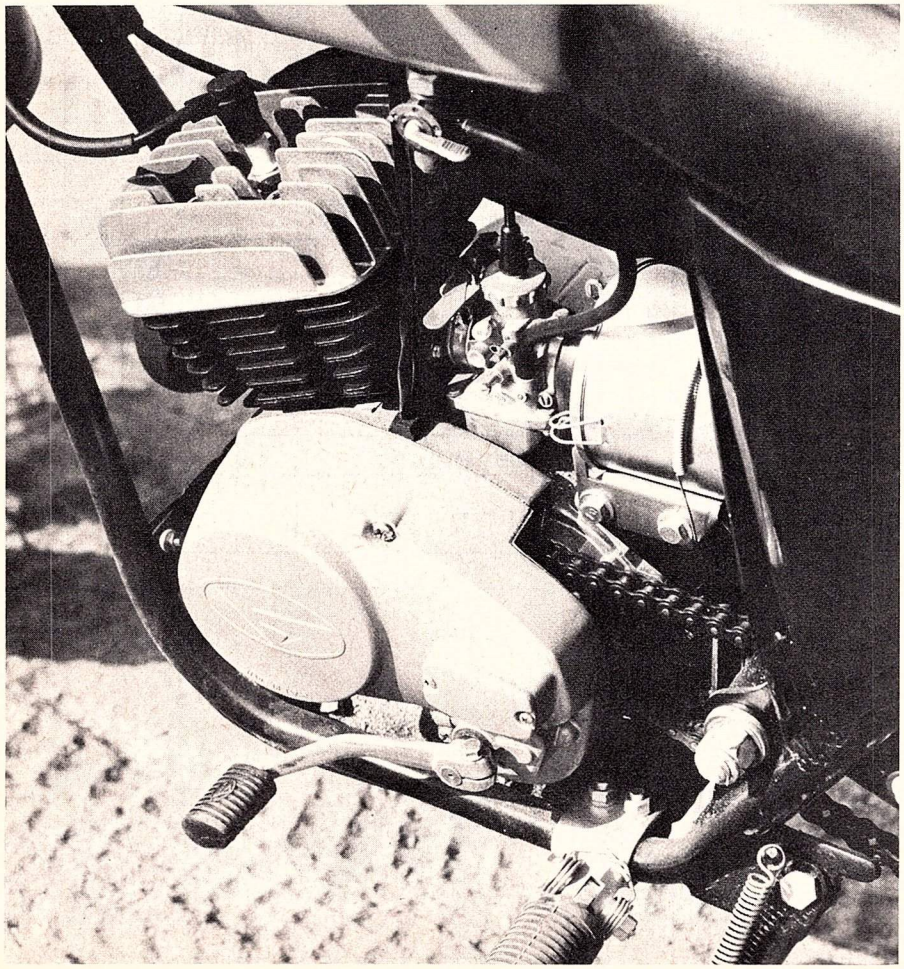
A limiting factor restricting the cornering ability of the ME is the suspension system. The spring rate, both front and rear, appears to be more than adequate to handle the smallest to the largest rider. However, as with most shock absorbers, the damping and rebound ability is lacking. This encourages the back end to try and trade places with the front wheel when negotiating whoop-de-doos and other such irregularities over a particular section of ground. But then the ME 100 is not meant to be an off-road racer. It is a machine designed for street use and occasional nondemanding off-road work. At least that is what it is suited for.

Both front and rear tires utilize a trials universal design that worked adequately. There is a 3.00x19-inch tire up front, and a 3.50x17-inch tire on the rear. The wheel rims are made from steel rather than aluminum.

The brakes are the internal expanding type, with a diameter of 4½ inches. The rear brake worked well, but the front binder was somewhat of a disappointment. It required a considerable amount of pressure before any stopping ability was sensed. We suspect, as we have found with several other dual-purpose machines, that the brake shoes have not been properly arced or fitted to the brake hub. Often it is just a question of time and wear before these two surfaces become mated with one another, and the stopping ability improves.

The handlebars are somewhat on the low side. An adult rider standing on the pegs has to hunch forward a bit. The footpegs are the rubber covered spring-loaded folding type. For a street bike the rubber performs a definite function, absorbing part or all of whatever vibration might be present. On a dirt bike, the





rubber-covered pegs are nothing less than a nuisance. The rubber either wears or tears and falls off, or is pulled off when the peg makes contact with the ground. This leaves nothing more than a small diameter steel stub that is extremely difficult to keep under foot. For a dual-purpose machine we prefer seeing a pair of steel serrated pegs in place of the rubber-covered units. The vibration on the ME 100 is not extensive, and doesn't require rubber to further subdue it.

The fenders are not made from the break resistant plastic so many manufacturers are utilizing today. Both front and rear fenders are made from metal. They can be bent or broken with extremely little effort.

On initial inspection, the ME 100 reminds one of a typically Italian-styled machine, easy to look at, in a different sort of way. It offers a slender shaped gas tank with a 1.6 gallon capacity and wide firm pleated seat. The instrumentation is simple —a speedometer and odometer. The ignition key is located below the speedo, between the two fork tubes. The 100 is equipped with a full-lighting system that makes it legal on the highways.

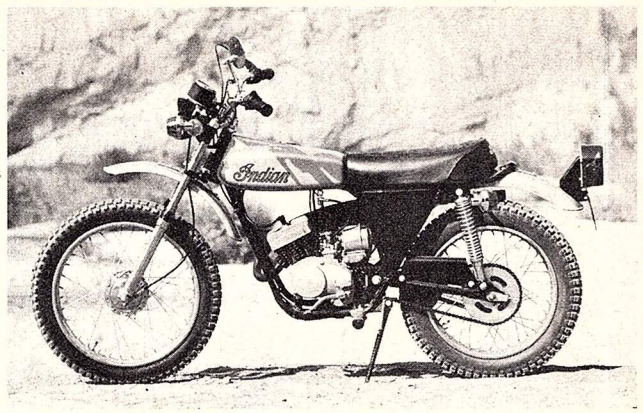
The exhaust system is not stamped as being USDA approved for operation on public lands off the highway. The exhaust system has somewhat of a tinny ring to it, but it is not unpleasant or annoying.

When first riding this unit we noticed a large gap between first and second gear. This was not a great bother over easy off-road terrain because of the power range offered by the engine. It's right in the ball park with most 100s sold today.

It does have an advantage over most units in the handling category. After thrashing the ME 100 for some time, in both normal trail situations and over a motocross course, we can be quick to point out that the Fuji 100 engine appears to be a virtually bulletproof unit capable of withstanding anything asked of it. Unlike the earlier model that exhibited weak frames, this unit performed admirably. All the bits and pieces remained intact. The bike is not intended for racing, but if it holds up under such treatment, it should have a long life as far as the trail rider is concerned.

The dealer network continues to grow, and it seems evident that the Indian management is putting forward a conscientious effort to improve their products. With the old reliable Fuji engine, the improved frame, and a price tag of $549, the Eurasian-American effort is worth a look. ●

INDIAN ME 100



Engine Type	Single Cylinder, Two-Stroke
Bore and Stroke	53 x 44mm
Displacement	97cc
Compression Ratio	7:1
Engine Red Lines @	7500 rpm
Ignition	Flywheel Magneto
Starting System	Kick, in Neutral Only
Carburetion	20mm Mikuni
Lubrication	Pre-Mix
Type of Transmission	Constant Mesh 5-Speed
Clutch	Wet Multi-Plate
Reduction Gear Ratios	(1) 8.71, (2) 5.92, (3) 4.07, (4) 3.17, (5) 2.69
Countershaft Sprocket	14
Rear Wheel Sprocket	50
Length	74.5 in.
Seat Height	30.0 in.
Wheelbase	50.0 in.
Ground Clearance	8.0 in.
Listed Dry Weight	162 lbs.
Actual Weight, Full Tank of Gas	200 lbs.
Front Tire Size	3.00 x 19 in.
Front Brake Type	Internal Expanding
Front Brake Size	4.5 in.
Rear Tire Size	3.50 x 17 in.
Rear Brake Type	Internal Expanding
Rear Brake Size	4.5 in.
Air Filtration	Washable Foam
Lighting	25/25 W
Battery Type	6V
Fuel Tank Capacity	1.6 gal.
Fuel Reserve	0.4 gal.
Gear Box Capacity	20 oz.
Front Suspension	Telescopic Double Damping
Rear Suspension	3-Way Adjustable Spring Over Shock
Frame Type	Tubular Double Cradle
Exhaust System	Not U.S.D.A. Approved
Colors	Silver, Red
Retail Price, Los Angeles	$549

Distributor
Indian Motorcycle Co.
1535 W. Rosecrans Avenue
Gardena, California 90249

IMPRESSIONS

	POOR	FAIR	AVERAGE	GOOD	EXCELLENT
ENGINE					
STARTING					●
EXHAUST NOISE					●
MECHANICAL NOISE					●
POWER RANGE				●	
ACCELERATION				●	
THROTTLE RESPONSE				●	
VIBRATION					●
CLUTCH	●				
TRANSMISSION		●			
CHASSIS					
HANDLING			●		
SUSPENSION			●		
RIDER COMFORT				●	
BRAKES			●		
TIRES			●		
CONTROLS					●
STYLING					●
FINISH				●	
INSTRUMENTATION				●	
LIGHTING			●		
TOOL KIT			●		

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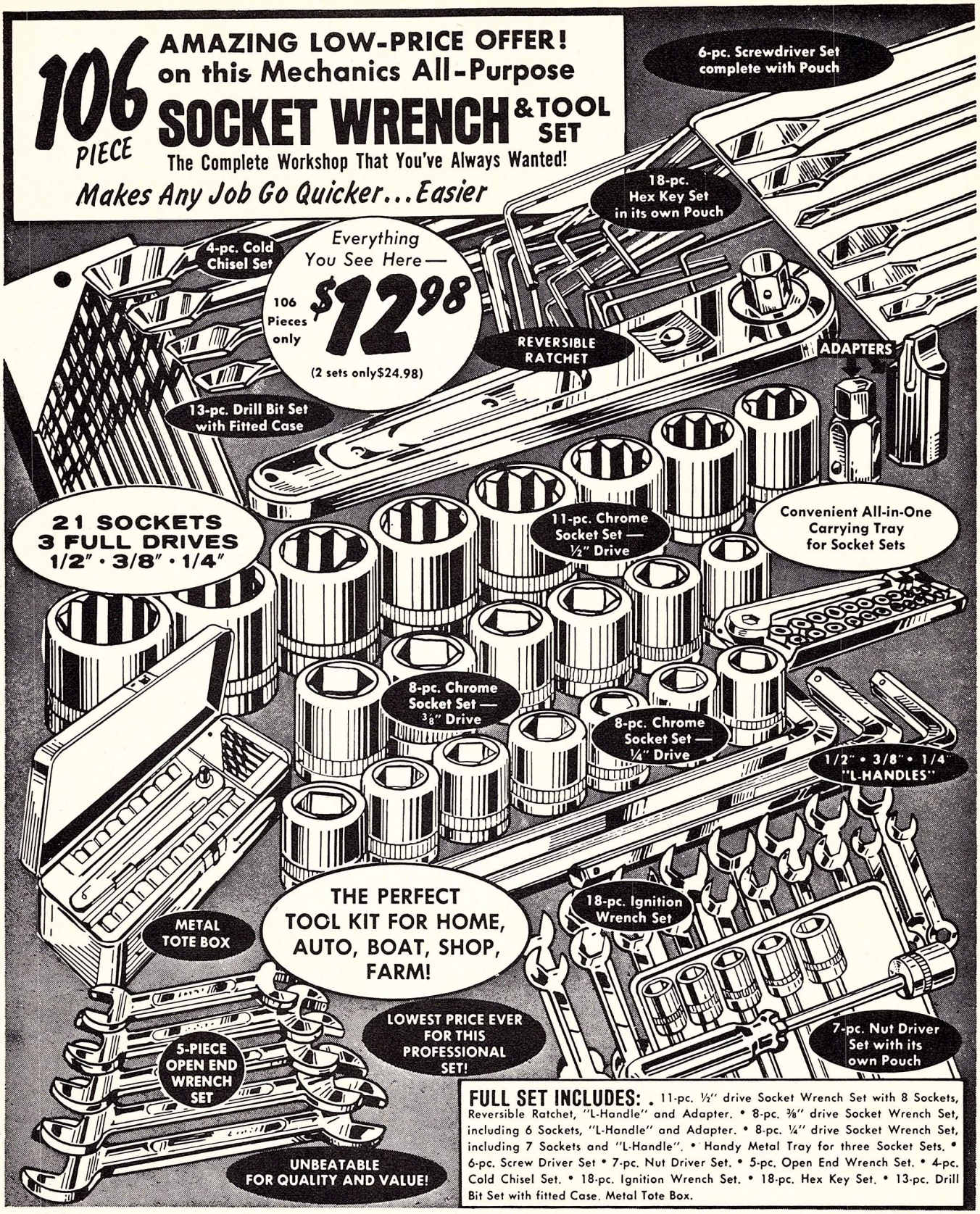
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JFK TRANS – TRANS-AMA

HOW TO WIN TWO MOTOS TWO MONTHS BEFORE THE ARMY-NAVY GAME AND STILL LOSE OUT TO A DUTCH DENTIST WITH A HANDFUL OF SECONDS.

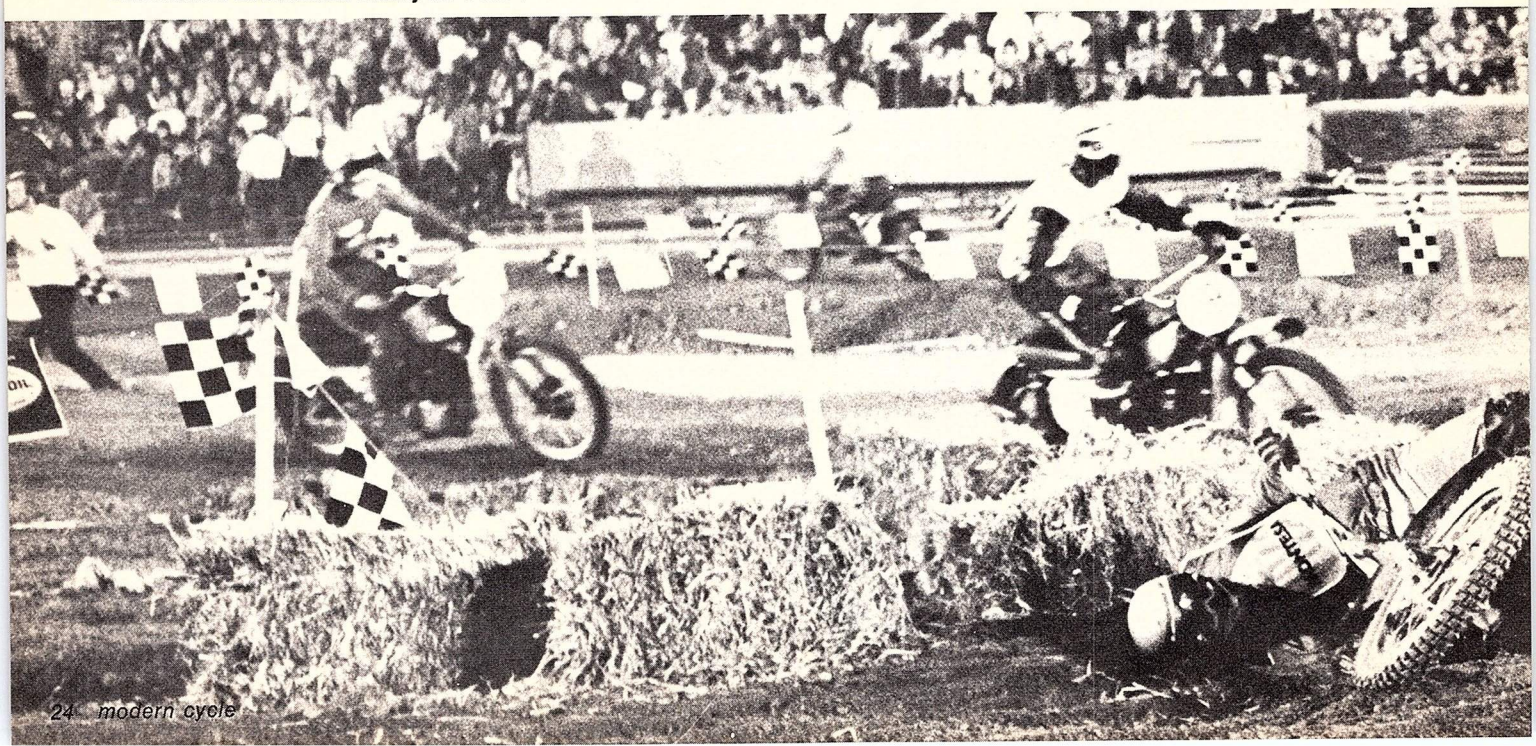
PHOTOGRAPHY BY STEVE LeHURAY AND EILEEN M. FOLEY

BY STEVE LeHURAY

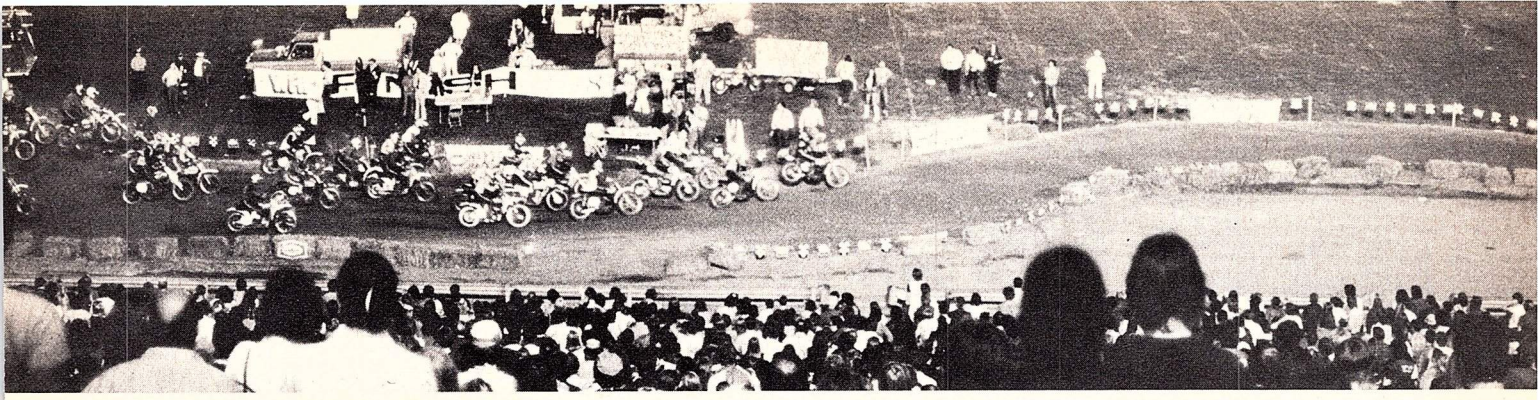
Now that "bigtime" motocross racing has been with us for a couple of seasons it has made some fantastic progress as far as the establishment goes. Consider the terrific Inter-AMA show put on the last two years at the Los Angeles Coliseum, which is certainly better known for football than bikes. More and more European motocross stars are chosing to take on the American Trans-AMA tour after they have completed their World Championship season in Europe. Now we are in some danger of impairing what we have accomplished by not being more careful in the sites scheduled for this prestigious series.

JFK Stadium in Philadelphia hosted the second round in the Trans-AMA series, and what went on there wasn't really motocross. It was more like a destruction derby. But before we drag it down, let's give some credit where it's really due. A lot of credit must be given to promoter Mike Goodwin for the event being staged in the first place.

It's no small task to convince a stuffy and quaint old town like Philadelphia that they should have a motorcycle race in a stadium that is only used once a year for the annual Army-Navy football classic.



Unidentified combatants scurry for cover.



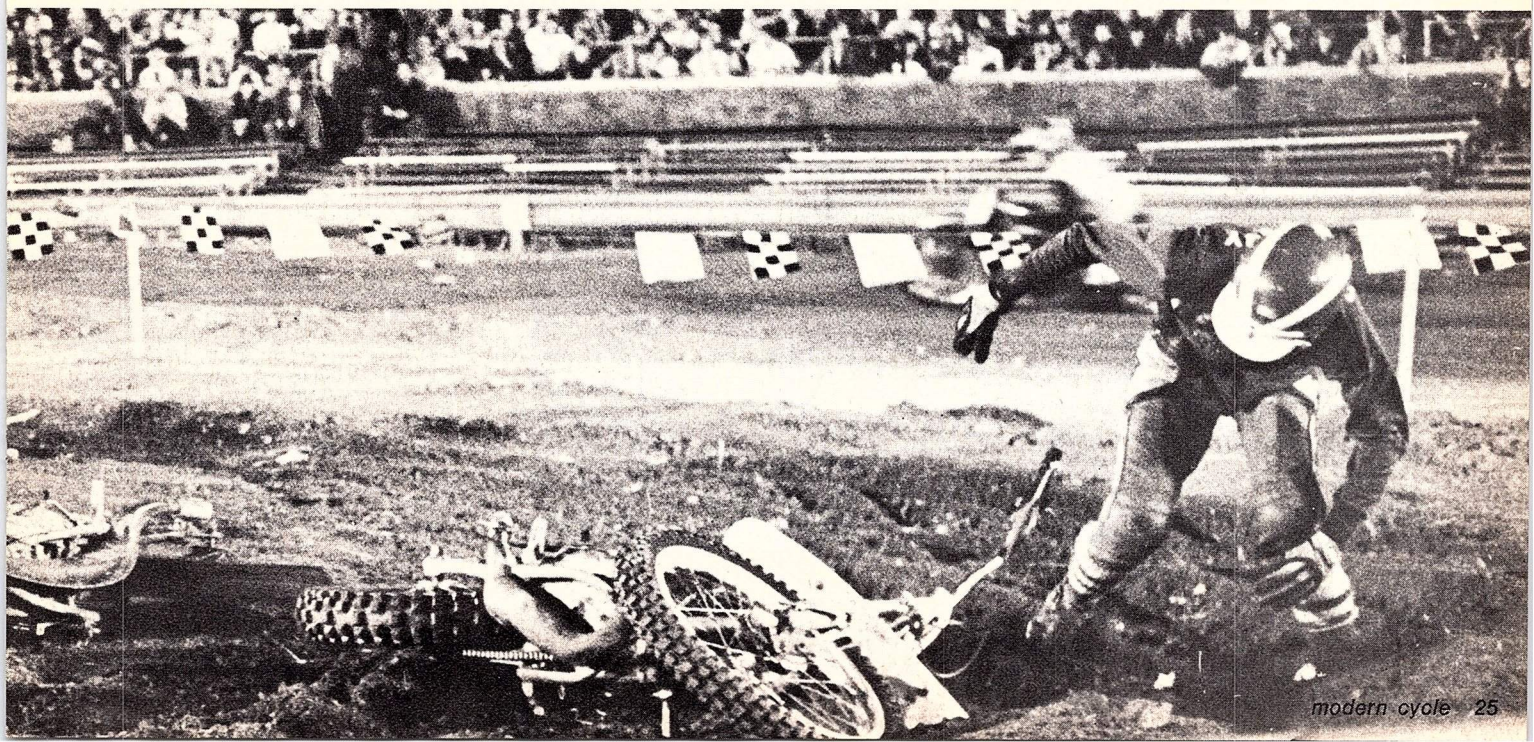
That's the first support race getting under way. Two months later 100,000 fans will fill those empty seats for the Army-Navy football game.

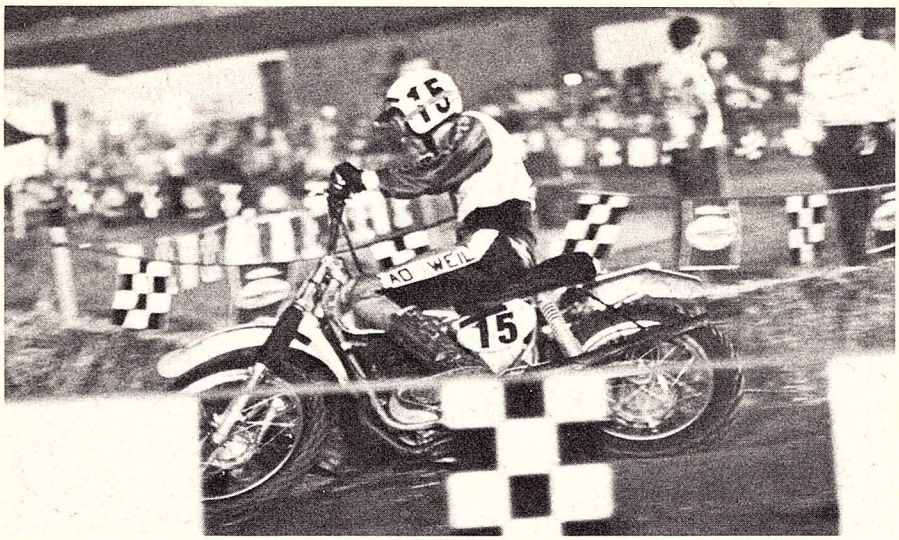
That contest packs 100,000 eager football fans into the rickety forty-year-old arena.

Goodwin puts on a good show. There is always abundant pre-race publicity; TV and radio spots and newspaper ads galore, combined with press releases to the media maximize his chances for a successful turnstile turnout.

Then the race itself is usually presented in a flamboyant manner with as much pomp, pretty girls, movie stars, and jet-powered helicopters as the good Mr. Goodwin can round up. But unfortunately, this doesn't add up to motocross. As a spectacle, it's great. But to be thrown into the middle of a points-paying series, it's bad. And many of the riders said so. The AMA even said so. John Lancione, the AMA's National motocross referee, said at Philly that this was the last time a points-paying race would be held on an artificial course.

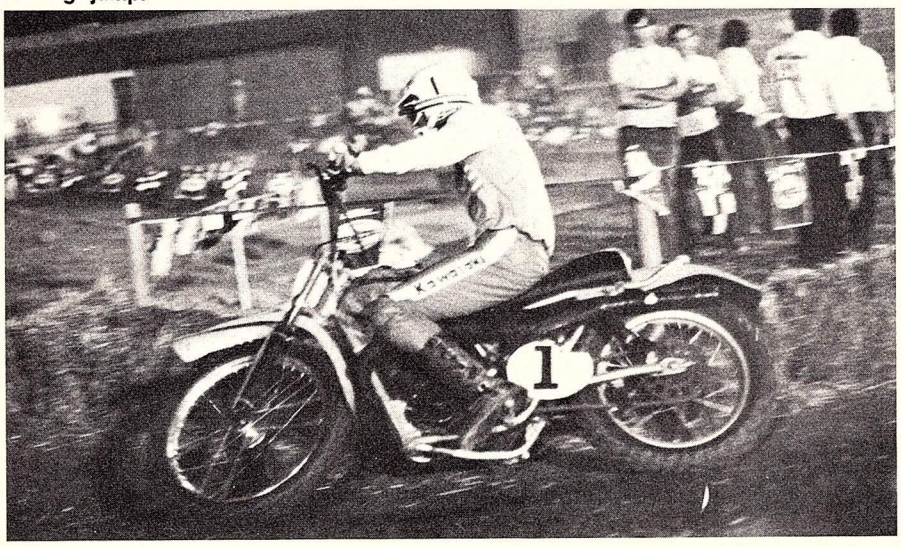
Obviously that's Karsmakers and Hart standing next to Lackey. Starry-eyed individual between Tim and Brad looks suspiciously like famous roving reporter, Bazooka Pete.





The striping on his leathers reads: Ad Weil. Read that as "add wheel" and it would have made good advice for Jimmy Weinert.

Here's the wheel Weinert would have had to add to get back into competition. His Kaw broke in two upon landing after the big jump.



Brad Lackey, who carries the number one plate for U.S. competition in the 500 Class, doesn't seem to be able to get with the shortened stadium events. He didn't place in the top ten overall.

And we say—good, because it just isn't the same as a race held over natural terrain. One of the most serious problems with a nighttime motocross is the deceptive shadows thrown by the artificial lighting. More than a couple of crashes at JFK could be blamed on the poor lighting. One thing a rider should not have to do in a race over a closed circuit course is to be constantly trying to figure out where he is going. If he alters his line through a dark spot, will he fall off a four-foot ledge? But, despite all of the pros and cons of stadium racing, 12,000 eager Philadelphia fans showed up to see their idols perform their magic.

After the pre-race ceremonies and introductions in which well-known TV actor William Shatner personally wished good luck to each of the riders, the stage was set for the start of the first of three thirty-minute motos. When the starting gate came down for the start, Roger DeCoster, three-time World Motocross champ in the 500cc class, stuffed his Suzuki in amongst the Maicos of Adolf Weil, Willi Bauer and Gerrit Wolsink. The first lap was the customary tight affair with Adolf Weil taking to the front at the jump aptly named Grand Teton. DeCoster had a narrow hold on second over Willi Bauer. The next time they came around, Bauer had bumped DeCoster out of second. The rivalry between Bauer and DeCoster, that had been present all season long for the 500cc World Championship, was continuing tonight.

As the minutes ticked off, the pack spread out and the three Maico men, Weil, Wolsink and Bauer, had the situation well in control. Wolsink had edged out Bauer for second in the tricky sand trap after following on his heels for several laps. DeCoster had a firm grip on fourth place while the young American Bultaco rider, Jim Pomeroy, had a slim lead over Yamaha's Pierre Karsmakers. Suzuki's Sylvain Geboers had dropped out of the running after he was involved in a first lap pileup in turn four.

When the clock ran out, Adolf Weil happened to be at the right place at the right time, the finish line. Weil and Gerrit Wolsink had been passing the lead back and forth, and it was Weil's good fortune to have the lead when he did. Willi Bauer and Roger DeCoster took third and fourth, while Jim Pomeroy came out on top in his struggle with Dutchman Pierre Karsmakers.

In between motos the organizers had arranged for entertainment from the Iron Cross, a local rock and roll group, but somehow somebody goof-

Gerrit Wolsink motors through the sand trap on the way to the Grand Teton jump.

ed. While the musicians played the announcer kept on recapping the previous race, drowning out the rock group. For the workers and photographers down in the infield it was entertaining at least, if not confusing.

The second moto was mass confusion at the start as the gate did not drop when the switch was thrown. A few of the riders lept over it, but were red-flagged for a restart as those left behind were picking themselves up off the ground. When all was squared away, and the switch was thrown for a second time, Adolf Weil beat everybody to the first jump to take the lead ahead of his fellow Maico men, Bauer and Wolsink. It did not take long for Wolsink to displace both Weil and Bauer for the lead. Then Weil dropped back with a suspected seized engine, but it turned out to be a false alarm, and he rejoined the running. By this time he was too far back to be any threat to the front runners. Roger DeCoster was holding his own in fourth place until he crashed his Suzuki and retired for the evening.

At the head of the pack Wolsink and Bauer were really having a battle for first with each rider taking a turn at the helm. It wasn't until Bauer made a last minute plunge to get by Wolsink at the sandtrap that the outcome was decided. With the hands on the clock indicating that

(Text continued on page 76)

RESULTS
Philadelphia Trans-AMA
September 28, 1973

500cc CLASS

First Moto

1.	Adolf Weil	Maico
2.	Gerrit Wolsink	Maico
3.	Willi Bauer	Maico
4.	Roger DeCoster	Suzuki
5.	Jim Pomeroy	Bultaco

Second Moto

1.	Willi Bauer	Maico
2.	Gerrit Wolsink	Maico
3.	Pierre Karsmakers	Yamaha
4.	Heikki Mikkola	Husqvarna
5.	Adolf Weil	Maico

Third Moto

1.	Adolf Weil	Maico
2.	Gerrit Wolsink	Maico
3.	Jim Pomeroy	Bultaco
4.	Pierre Karsmakers	Yamaha
5.	Bob Harris	Maico

OVERALL

1.	Gerrit Wolsink	Maico
2.	Adolf Weil	Maico
3.	Pierre Karsmakers	Yamaha
4.	Tim Hart	Yamaha
5.	Jim Pomeroy	Bultaco
6.	Tony Distefano	Bultaco
7.	Gary Chaplin	Honda
8.	Rich Thorwaldson	Suzuki
9.	Bob Harris	Maico
10.	Jim Cooke	Kawasaki

250cc SUPPORT CLASS

First Moto

1.	Rich Eierstedt	Honda
2.	Ron Self	Maico
3.	Doug Grant	Bultaco
4.	John Borg	Yamaha
5.	Bruce Dengler	Honda

Second Moto

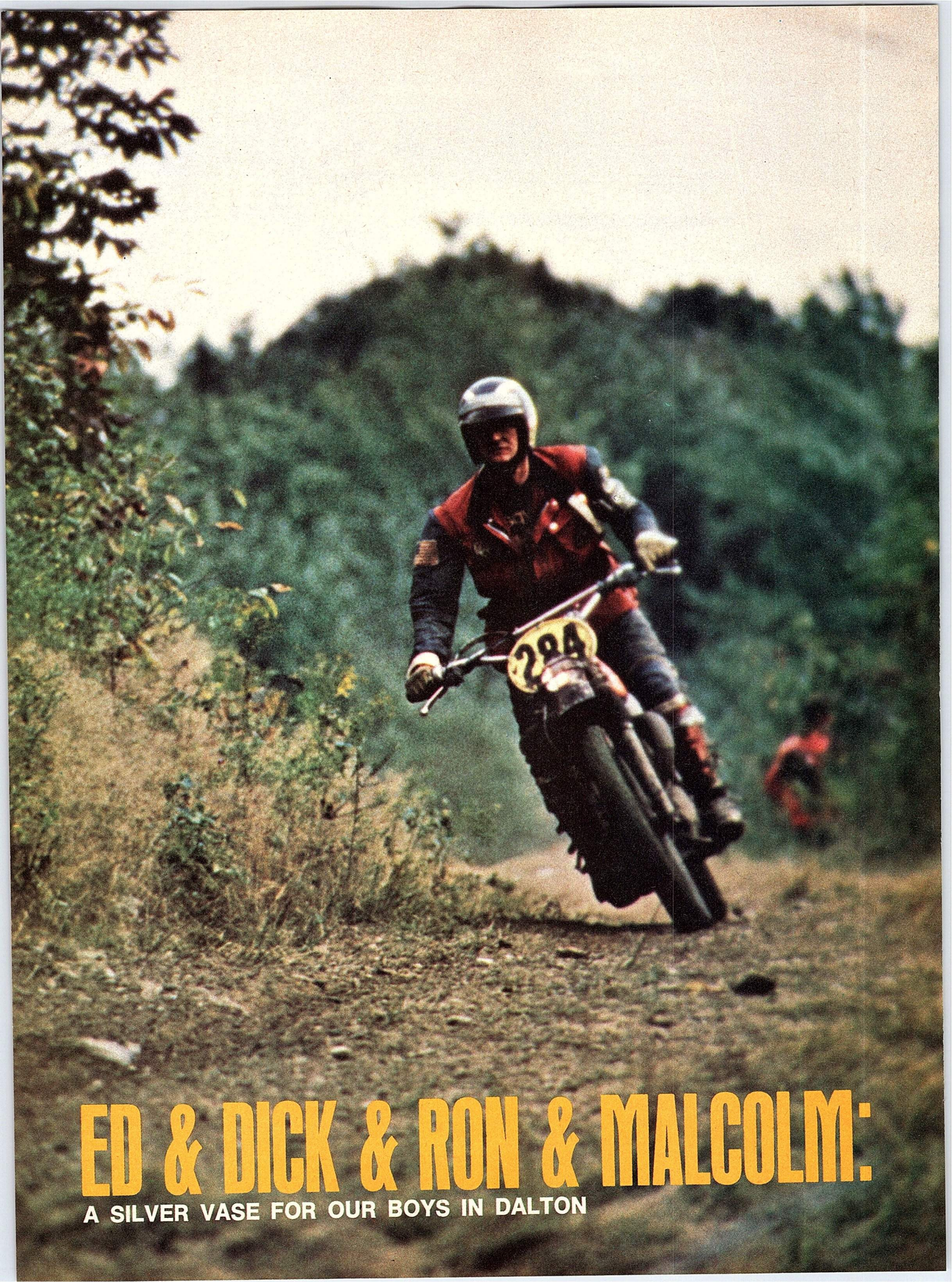
1.	John Borg	Yamaha
2.	Bryar Holcomb	Honda
3.	Ron Pomeroy	Bultaco
4.	Rich Eierstedt	Honda
5.	Bob Frodinski	Honda

Third Moto

1.	John Borg	Yamaha
2.	Ron Self	Maico
3.	Rich Eierstedt	Honda
4.	Bryar Holcomb	Honda
5.	Ron Pomeroy	Bultaco

OVERALL

1.	John Borg	Yamaha
2.	Rich Eierstedt	Honda
3.	Bryar Holcomb	Bultaco
4.	Bruce Dengler	Honda
5.	Ron Self	Maico



ED & DICK & RON & MALCOLM:

A SILVER VASE FOR OUR BOYS IN DALTON

Ed Schmidt concentrates on winning that Vase despite the insanity which surrounds him.

It's been four days now and you start to get panicky. *How much longer can all those bikes hold out?* One thousand one hundred miles doesn't seem like such an awful long way until you stand next to the trail and watch one of them come by: up the long, gnarly hill, bum, bam bum, the bike jars its rider a couple of good ones; airborn at the crest of the hill, nice flight to the ooooooooooos! and aaaaaaaaaahs! of hundreds of pennant-waving spectators (spectators? At an ISDT in America? You bet, gang—lots of 'em.), comes down hard enough to make top and bottom shock mount bolts almost touch, just in time for this poor motorcycle to plummet headlong into a mud-milled ditch, where the forks too use up all their travel so the rider has to supply a couple of inches of damping of his own.

Now, all this energy can remain stored for so long: in the space of time much shorter than you can read this, the whole works goes *spang!* And now our rider is completely airborn in yet another flight, but this time the ooooooooo-ing and aaaaaaaaaa-ing spectators collectively whisper *gasp!* because this poor man has been thrown completely sideways by the ditch's impact, and disaster is imminent. Except this rider has the look of cold steel in his eyeballs, and the moment his motorcycle comes down, he takes a giant hit off the throttle, his knotted motorcycle suddenly whips itself arrow-straight, and this bike and rider continue bouncing down the trial as if nothing had happened.

To him, nothing *did* happen, if you care to know. This particular guy is Zdenek Cespiva, and he is a factory rider for Jawa. He was born and raised in Czechoslovakia, and is one of the few proud fellers who can call themselves the Czechoslovak World Trophy Team. For Zdenek and his buddies, adventures like the aforementioned are part of the everyday routine of waxing everyone else in the entire world at International Six Days Trials.

Okay, so the Czechs are in a league of their own. They got everything involved in Six Days — machines, pit stops, wrenches, special assistance out on the field—worked out. Perfectly. For a Czech, to start the Six Days is to bring home a Gold Medal. Nuff said.

John Penton lives to see the day America brings home the World Trophy. When we all amassed in lovely Dalton, Massachusetts, for the 48th ISDT, some of us actually thought we might be able to put it to the Czechs. When you see guys like Jack Penton and Bill Uhl howl across the desert at ungodly speeds even though they've never ridden it before; when you see Carl Cranke and Jeff Penton stuff their bikes into a completely blind corner on a wooded trail and uncannily do The Right Thing; when you see Tom Penton and Dane Leimbach change a flat, clean their brakes, and adjust the chain in the time of an average station break—when you see Our Boys look so much better than you can ever hope to be at this trials game, you think: "How can those furriners possibly be better?"

But they were better, but not that much better. But this is motorcycles, where a little bit is a lot.

There's an old saying, something about if you can't win an ISDT in your own country, you are not trying very hard at it. Certainly, in this, our very first ISDT, we tried plenty hard. The only thing we don't have, and it became obvious at the end of the Six Days, was experience. It was inexperience that caused Jeff Penton's Jackpiner to ingest some silicon from the airbox, causing him to go from the Gold to a Bronze in one swell foop. Next year he'll know.

Then Tom Penton got lost. It was

STARTING OUT ON THE ZEROETH DAY AND PROCEEDING TO THE SEVENTH DAY, IT WAS SIX TO EIGHT DAYS OF SIX DAYS SUCCESS. BY TOLEDO HANSEN

Photography by David Swift and Dave Schoonmaker

Ron Bohn of the winning US Silver Vase A Team.

silly, really: he woke up Day 4, his mind still a bit zizzed about Day 3's maddening ride of roads, roads, roads. Tom rode out of the impound area, he saw an arrow "3" and began following like the day before. He learned of his mistake soon, but not before he dropped three penalty marks for being late to a check. Next year he'll know.

After those errors, which are quite insignificant when compared to the trouble most other Trophy Teams had, everything was jake. The Penton bikes held up wonderfully.

Jack, Carl, and especially Billy, went very fast on the special tests; Jeff is a rocket, too, but he conserved himself on the special tests after the silicon incident.

So we didn't win this year, like some of us dewy-eyed hopefuls had optimistically hoped for. The worst we could do, we thought, was third, behind the Czechos and East Germans. And then the East Germans bailed out after riding a single day. Which was quite a peculiar story: it seems that the East Germans discovered their MZs and Simsons had developed serious ring problems; the East Germans immediately blamed the oil. Castrol issued a press release within 24 hours publicly apologizing for the incident, explaining the wrong oil had been shipped, that the East Germans got fork oil, or something, and that we hope you guys won't be mad at us in the future. Afterward, Castrol anxiously placed calls to lots of magazines and newspapers and so on, claiming they had made further lab studies on the problem and have come to the conclusion the oil was peachy-keen, there was nothing wrong with the oil at all, and the East Germans had better come up with a different explanation. We could almost taste a wildly extravagant victory.

Jeff's trouble happened Day 2, which bummed many people who watched the American team sink into tenth over all.

But as we watched the American hopes take this dive so heartlessly pointed out on the computer readouts, we watched the American Silver Vase Team take a giant step

Dave Mungenast was very jovial all week, although his Triumph gave him some trouble. He's a good guy.

in the opposite direction. By Day 3 the Silver Vase Team was leading everyone else, and, after all, the Silver Vase is the second highest team trophy, certainly something to be proud of.

Malcolm Smith was one of the four-member Vase team, and even Carl Cranke will tell you: "Malcolm is the very best we got," and Malcolm is the Daltonites' favorite rider, and they scream their unpolluted New England lungs out at him whenever he rides by. Actually, the locals had the hots for Steve McQueen. Everywhere you went some woofie, usually high school but many older, was asking: "Is McQueen here? Is McQueen here?" Rumor suddenly had him renting out the whole top floor of the Pittsfield Hilton, no doubt so he could have some of those (giggle) Hollywood wild parties. Then he split for quieter surroundings because of all the autograph hounds. The locals' rumors became abundant until even those who knew better were having second thoughts about Steve's arrival. Alas, Steve never happened.

Anyway, there's Malcolm on his Husky—the whole Silver Vase Team is on Huskys—riding smoothly, falling down rarely (Six Days riders, all

Swedish rider Hans Ericsson was a member of the Silver Vase team that placed behind the U.S. He watered his motor the first day. Here, he maintains.

of 'em, fall down, no matter what they tell you), and persevering despite a sprained pinky finger when he caught a branch first day out.

For the rest of the Vase team, you've got dapper Dick Burleson, riding a 175 Husky. Don't expect to see one too soon; motorcycles like this have a habit of reappearing only at the ISDT many times before finding a dealer's showroom.

Ron Bohn is the only Vase rider to drop any points at the git-go, because he is fed bad information.

And then you have Ed Schmidt. He's one of those riders who earned a place on the team because he's non-flashy, earnest, disciplined—no doubt very few will write about Ed although he rode a flawless Six Days, finishing high in his class aboard a Husky punched out beyond 500cc and racing against motorcycles like 650 Triumphs and 300-pound BMWs limited to 1300cc.

Six Days at a slow, tortuous pace —the results—every day you get in a car and drive 30 miles to watch the riders come through a farm or down a powerline, each rider comes and goes in an instant, most of them looking very fast and fresh. Then you drive 20 miles somewhere else and watch them all go by again. This time not so many look so fresh.

Finally, you drive for another 20 miles to watch them all go by again, and while you're in your car, listening to poetry recitals on FM, munching on Triscuits and Ginger Ale, you think: "Wow, right now all those guys are out there, whopping their bodies all over the terrain, never stopping to relax for a moment, and here I am (burp), munching away, in supreme comfort." It all seems so easy, the ISDT, when you are in the driver's seat of a fancy-dan European sporty car.

Six Days is tough. You talk about the brutality of 45-minute motos or 150-mile enduros. This is a 1,100-mile enduro combined with, at times, motos lasting an hour or two, and the pit stops are, at best, ten minutes long. And you only get a long pit stop as a reward for riding your moto over unfamiliar terrain much faster than nearly everyone else.

Of all the parts of the body that get fatigued during the Six Days, the brains takes the worst beating. All the times you have to convince

Jeff Penton looks happy here, but was feeling low all week when his bike failed, putting down US Trophy Team chances.

Rokons surprised everyone when they finished all six days, but they have yet to be completely sorted out. Jim Fogle gasses it.

Carl Cranke was one of the top performing Americans, and always has a good attitude about Life In General.

Kvetoslav Masita led all 350 riders as he paced the Czech team to the world trophy title.

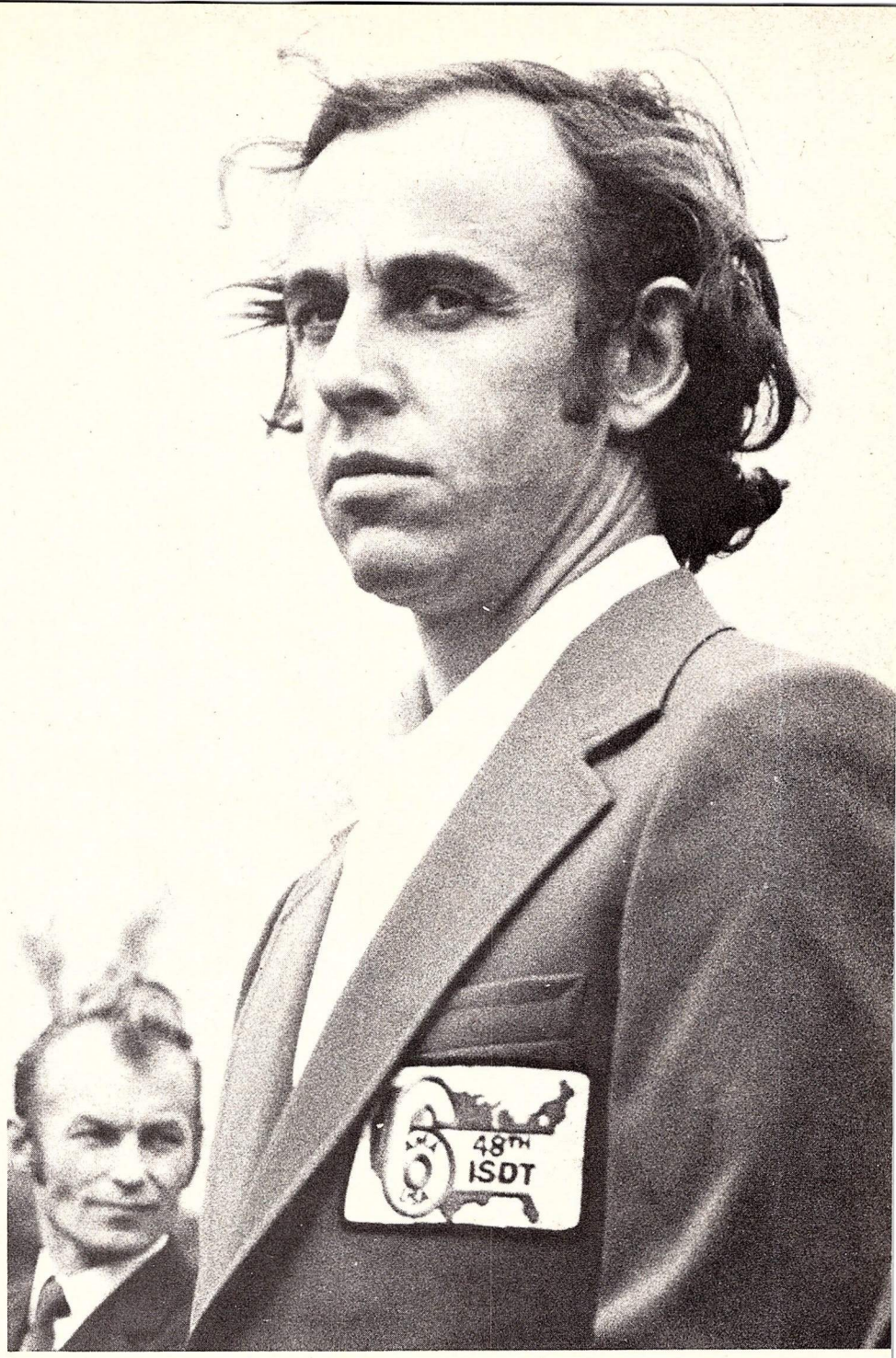
Malcolm Smith was either very serious or very jovial all week.

yourself to do things your frazzled body resists. Your eyes don't want to look straight ahead, your butt doesn't want to stay off the seat, your legs won't stay rigid, your hands won't stop their annoying habit of loosening unexpectedly.

By the last day, we are glad the Trophy Team has wriggled itself into a fifth place overall, very respectable for Our Boys. After all, our Trophy Team averages 22 years, while the Europeans average mid-30s. We have a lot of time—"just wait 'til '76," says John Penton, in all seriousness.

The last day still finds our Vase team in the lead, and we are very proud of Malcolm, Ed, Dick, and Ron. But we haven't counted our chickens, yet, and hearts either speed up or stop, altogether, when Dick Burleson fails to come into the very last check of the day on time. Six minutes late, Burleson comes hauling his cheeks in, looking miserable. He got a flat tire, had to change it. How late am I? It's okay, Dick, you only lost a couple, which is a shame since you had your Gold all but strung around your neck. But Sweden is in second place, and they've lost 23 points, so we have a decent cushion, considering the Six Days is over. Done.

There are a zillion things to say about the Six Days, *our* Six Days. Like the Gold Medals guys like Paul Danik, Joe Barker, Charlie Vincent, and others won for the United States. Or how Doug Wilford was up bright and early the Sunday afterward, washing motorcycles with this big grin on his face. Or how the folks of Dalton, Massachusetts, were the most hospitable you could possibly imagine, how they lined the streets and course routes for miles, thou-



Herbert Dietrich of the third-placing Austrian Trophy Team.

sands of 'em, waving and cheering like mad whenever an American rode by.

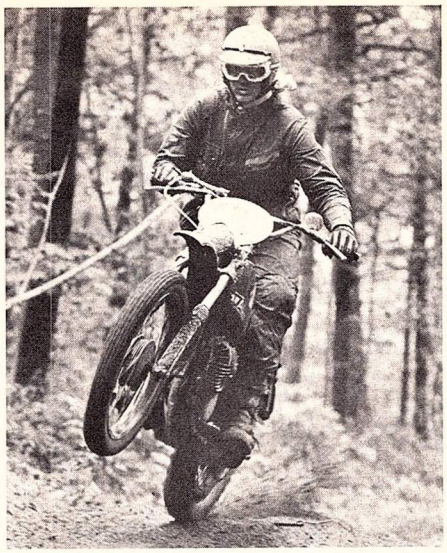
And for every good American performance there were several outstanding performances by a European, many of whom had come over here on bucks they could scrape during the last year. Not to mention all the color and pomp the Europeans gave that little fenced-off area known as the "Parc Ferme" in a field on the outskirts of Dalton.

There are a zillion little stories, yes, all of which add up to the Six Days being one of the great mind-trips for anyone who cares to involve himself with the whole scene.

One of the biggest trips was the fact that AMA managed to bring the

Jack Penton (left) and Czech Kvetoslav Masita pose for snapshots after it's over: Jack is one of America's very best; Masita is THE very best in the world.

Joe Barker (US) got a gold medal.



Netherland Puch ace J. de Groot shows class in the Berkshires.

Tom Penton lost marks due to course marker confusion, otherwise he would have gotten a Gold. Such is Six Days.

thing off so well. Just two days before the event the whole thing came frightfully close to not being held at all, due to some giant bureaucratic boo-boo and mishandling of chores.

But the thing came off, and it came off much better than even the AMA itself expected. Indeed, it got off to a shaky start, what with a gate left locked Monday morning, preventing the first riders from getting cleanly away, but the following days sort of snowballed, enthusiasm and efficiency-wise, and by the end of the week everyone was just loving the event.

But the biggest story of all was how Malcolm and Ed and Ron and Dick sneaked up and stole that Silver Vase. It's ours. They earned it, they rode better than all the other Silver Vase teams from Sweden, Czechoslovakia, The Netherlands, West Germany, Britain, everyone. Absolutely terrific. ●

RESULTS
International Six Days Trials
Dalton, Massachusetts
September 17-22, 1973

WORLD TROPHY TEAMS

1. Czechoslovakia
2. Great Britain
3. Austria
4. West Germany
5. U.S.A.
6. Sweden
7. The Netherlands
8. Belgium
9. Italy
10. France

Winning Team—Czechoslovakia

Petr Cemus	250 Jawa
Frantisek Mrazek	250 Jawa
Kvetoslav Masita	350 Jawa
Josef Cisar	350 Jawa
Zdenek Cespiva	500 Jawa
Josef Fojtik	500 Jawa

Fifth Place U.S. Team

Tom Penton	125 Penton
Jack Penton	350 Penton
Jeff Penton	175 Penton
Carl Cranke	250 Penton
Dane Leimbach	100 Penton
Bill Uhl	100 Penton

SILVER VASE TEAMS

1. U.S.A. A
2. Sweden A
3. Czechoslovakia B
4. The Nettherlands B
5. West Germany B
6. Belgium A
7. Italy B
8. Italy A
9. Czechoslovakia A
10. West Germany A

Winning Team—United States

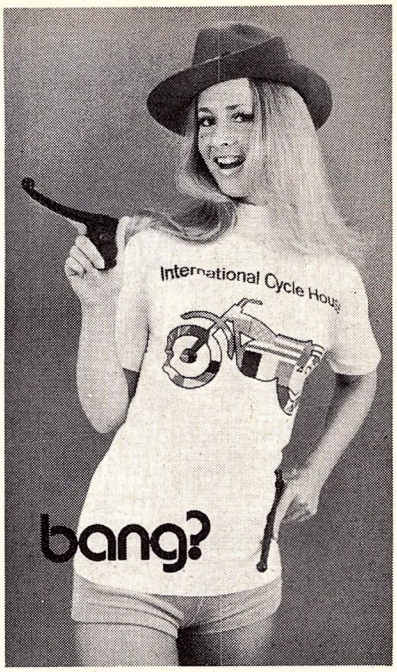
Dick Burleson	175 Husqvarna
Malcolm Smith	250 Husqvarna
Ed Schmidt	1300 Husqvarna
Ron Bohn	350 Husqvarna

MANUFACTURERS TEAMS

1. Zundapp II (Germany)
2. Jawa 1 (Czechoslovakia)
3. Jawa 2 (Czechoslovakia)
4. Jawa 4 (Czechoslovakia)
5. Husqvarna II (Sweden)
6. Monark II (Sweden)
7. Steyr-Daimler-Puch II (Austria)
8. Triumph Engineering A (Great Britain)
9. Husqvarna A (USA)
10. Steyr-Daimler-Puch I (Austria)

Winning Team—Zundapp II

Jurgen Grisse	50 Zundapp
Josef Wolfgruser	100 Zundapp
Reinhard Christel	125 Zundapp



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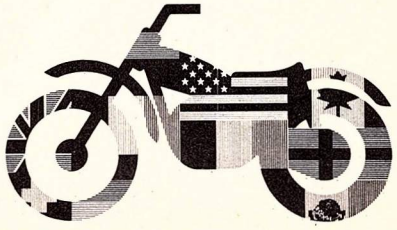


MODERN
CYCLE

PRODUCT EVALUATION:

THE WHISPERIN' SMITH PIPE

It works, but it doesn't exactly whisper

BY WALT FULTON, JR.

Kawasaki has been offering a 250 street/trailer for a handful of years now. Some of you may even remember their 238cc Greenstreak. It, thankfully, is no longer with us, but its successor, the F 11 is, and as dual-purpose machinery goes it is certainly now competitive with the four other 250s offered by Japan. (Remember, Honda now has two 250 street/trailers.) As with any compromised dual-purpose machine, a certain number of purchasers are more dirt-oriented. This means that they want to pump up their bike with more performance or improved off-road handling. There are dozens of accessory items offered for those purposes. Some of them actually do everything their manufacturers claim.

We do, from time to time, come across an item that does indeed increase the power output and capabilities of the engine. A case in point is the Whisperin' Smith silenced expansion chamber available from Torque Engineering of Northridge, California. When we received this chamber from Chuck Smith of Torque Engineering, he made some impressive claims, but we're used to hearing those. As the old saying goes, probably traceable to a slightly inebriated elf on Christmas Eve: the proof is in the pudding.

To verify Mr. Smith's claim (funny, he doesn't look anything like Alan Ladd) we trucked on out to Orange County International Raceway. We do most of our performance testing there. The dragstrip offers good traction and you get a good lunch for $1.25.

We started off with Plan A: run the yellow (that's its color, not its character) DPer through the traps with its stock pipe. We would then install Smitty's Torque Engineering pipe and, as Chuck Berry would say, do it all over again. Then we would compare the figures.

After warming up the F 11 we made five passes down the four-forty. The best effort turned out to be 17.74 seconds at 68.44 mph. The Christmas tree statisticians in our midst will be quick to point out that neither the time nor the speed seem very impressive. (Earlier this year a test unit did 17.04 at 72.81). We weren't too surprised with these numbers because we had requested an F 11 that would meet two requirements. It had to run, and it had to be consistent. Both of these requirements were met. The machine that was loaned to us had just been returned from a road test from another magazine. It was not exactly in the sharpest state of tune. But we weren't interested in how fast it went, only in how much faster the TE pipe made it go.

Removing the stock Kawasaki exhaust system is relatively simple and quick. There are two bolts that attach the muffler to the frame through rubber-mounted brackets. Two springs at the header pipe are attached to the cylinder above the exhaust port. Torque Engineering's silenced expansion chamber slipped right into place just like the advertising copy says it does. The brackets on the header pipe where the two springs are attached, are positioned in exactly the right place. The clamp and strap that secure the exhaust pipe in the rear are included with the installation hardware. The clamp is wrapped around the stinger section of the pipe and attaches to the strap which is then hooked up at the top shock mount.

Once our ten minute installation exercise was completed, we checked our handiwork. Luckily for us (although the previous tester probably didn't share our joy), the left rear turn signal and brackets were bent up at quite an angle. It was obvious that someone before us had dropped the bike. As a result, the extra length of the accessory stinger presented no problem.

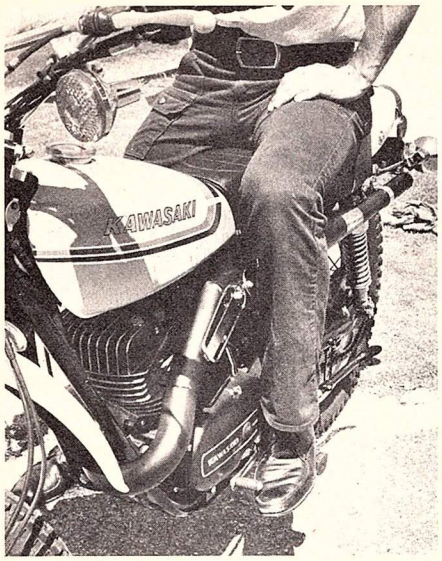
Anyone who is going to install the Whisperin' Smith pipe on an F 11 that hasn't been dinged like our test unit must first remove or relocate the left turn signal. Or they can bend it up at an angle, as is illustrated in the photos. Deliberate bending is quicker, more accurate, and less painful than tossing the bike away at your favorite playground.

The accessory pipe does not use all mounting points. It uses one less than the stock pipe. We were told that this two-point attachment is more than adequate to securely fasten the exhaust pipe. However, to be on the safe side, we would like to see a third point utilized to further insure that the pipe will not come adrift.

Again, after some warm up time, we made five trips down the quarter-mile strip. The best figures were 17.07 seconds at 71.14 mph. This is approximately a 7/10th of a second gain from a bolt on accessory item.

We feel that the placement of one of the heat shields should be criticized. It is mounted somewhat higher than seems necessary. Because of the curvature of the pipe, the top of the shield is angled toward the motorcycle while the bottom is angled toward the outside. The result of this placement is a sharp edge which tends to dig into the calf of the leg when it is held in tight against the motorcycle. To correct this situation it is necessary to build a shield that conforms to the shape of the pipe rather than one that is flat.

The quarter-mile acceleration times are an obvious indication of the power improvement provided by this exhaust pipe. The accessory piped F 11 had more of a tendency to pull the wheel off the ground in first



and second gear. This improvement in the low speed performance is beneficial for any off-road machine.

So much for the good news. Now for the bad news. We already mentioned the heat shield that tends to cut into the leg if you are a tank clasper. We have also mentioned that the stinger is long enough to require some diddling around with the turn signal. The stinger, in close proximity to the turn signal, may also melt the plastic lens that covers the turn signal bulb. It didn't on our test unit, but we didn't put many miles on it.

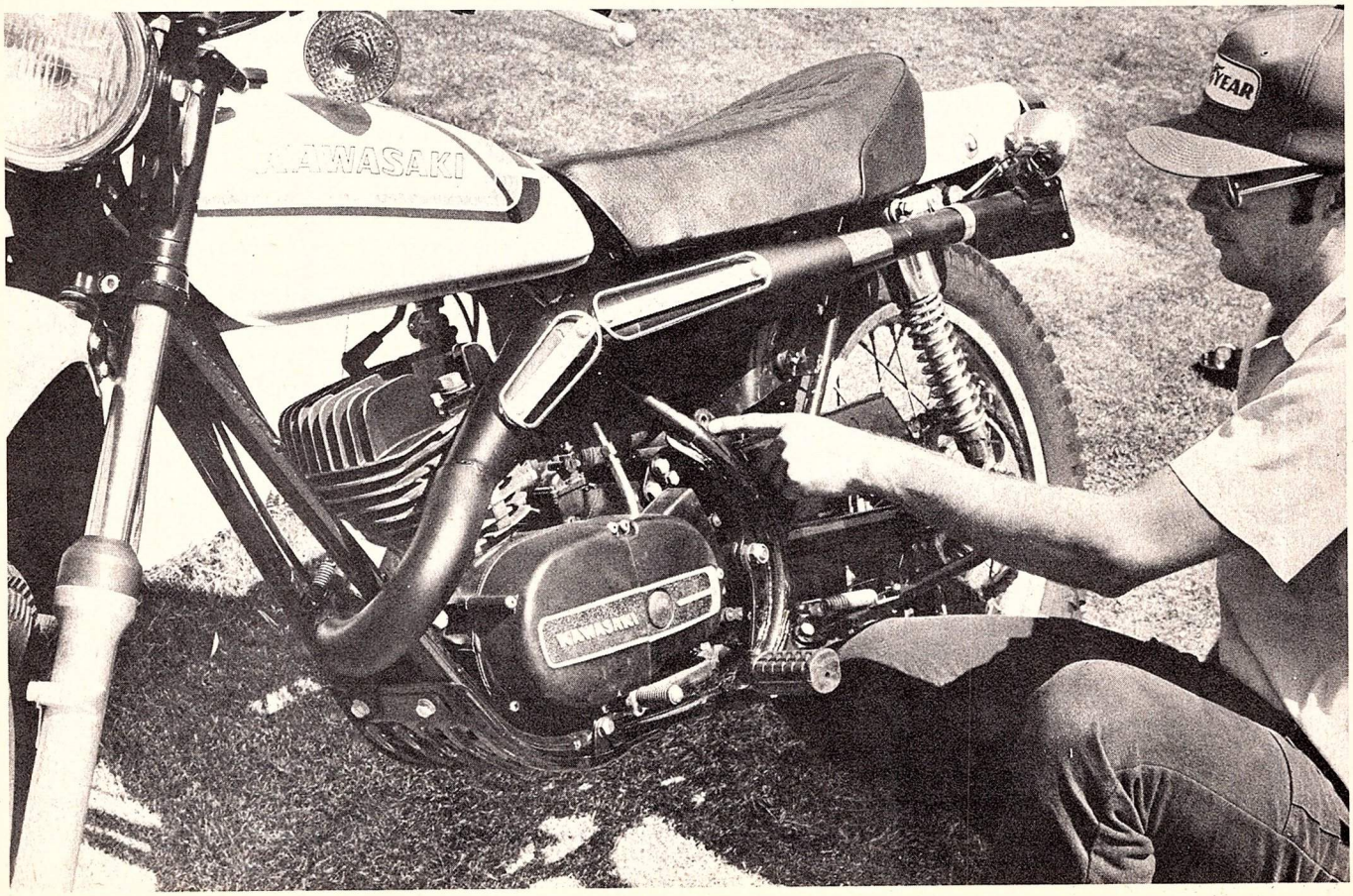
The other drawback is the sound level. Performance boost is not purchased without boosting the decibels a good bit. If it doesn't exceed street legal requirements, it's right on the borderline. We feel that it would be an unwise move to mount this exhaust system on an F 11 intended for street use because of the loud sharp pitch of the exhaust note.

So you say to yourself the place to use this pipe is off the highway and away from populated areas. That's okay, even on government land, because the silenced expansion chamber does include a U.S.D.A. approved spark arrester. Well, one of them does. We tested the pipe without a spark arrester, but a second is available for those who need the U.S.D.A. stamp of approval. The pipe seems suited for those riders who favor doing it in the dirt at a motorcycle park

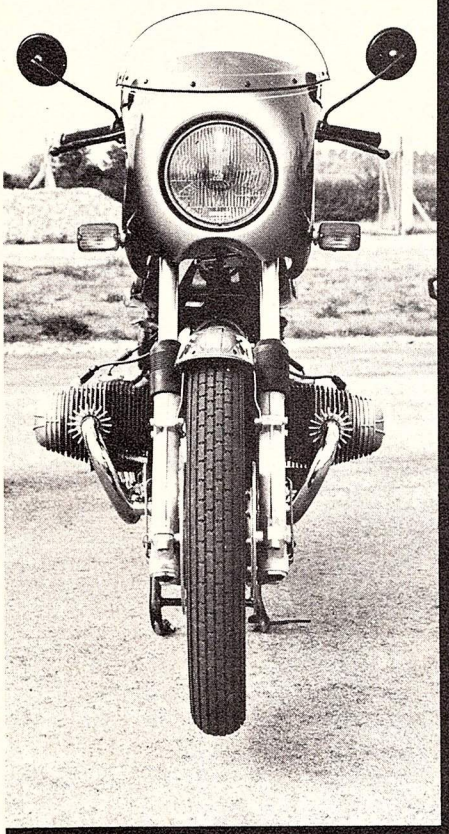
or their favorite off-road riding area.

One aspect that we haven't mentioned is the savings in weight. The Torque Engineering pipe provides a fifty percent weight savings. This may or may not be noticeable to some riders.

Each tenth of a second goes for about $8.50. Torque Engineering sells the silenced F 11 pipe for $59.95. The pipe with the spark arrester and silencer is $69.95. They're available from dealers or you can write them at 19755 Bahama Street, Dept. 245 MC, Northridge, California 91324 for further information. ●

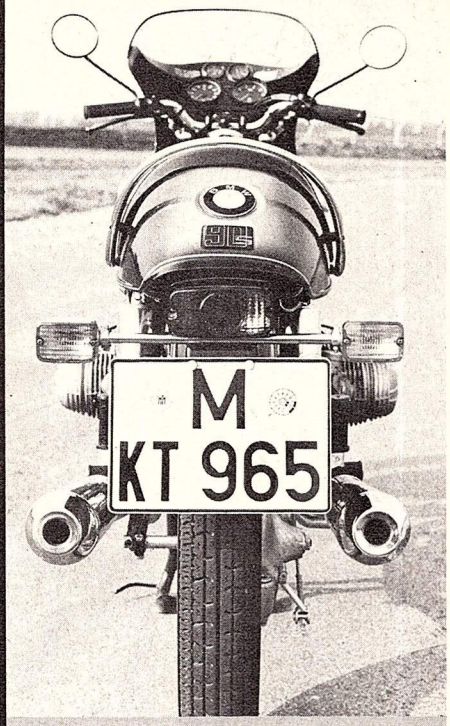


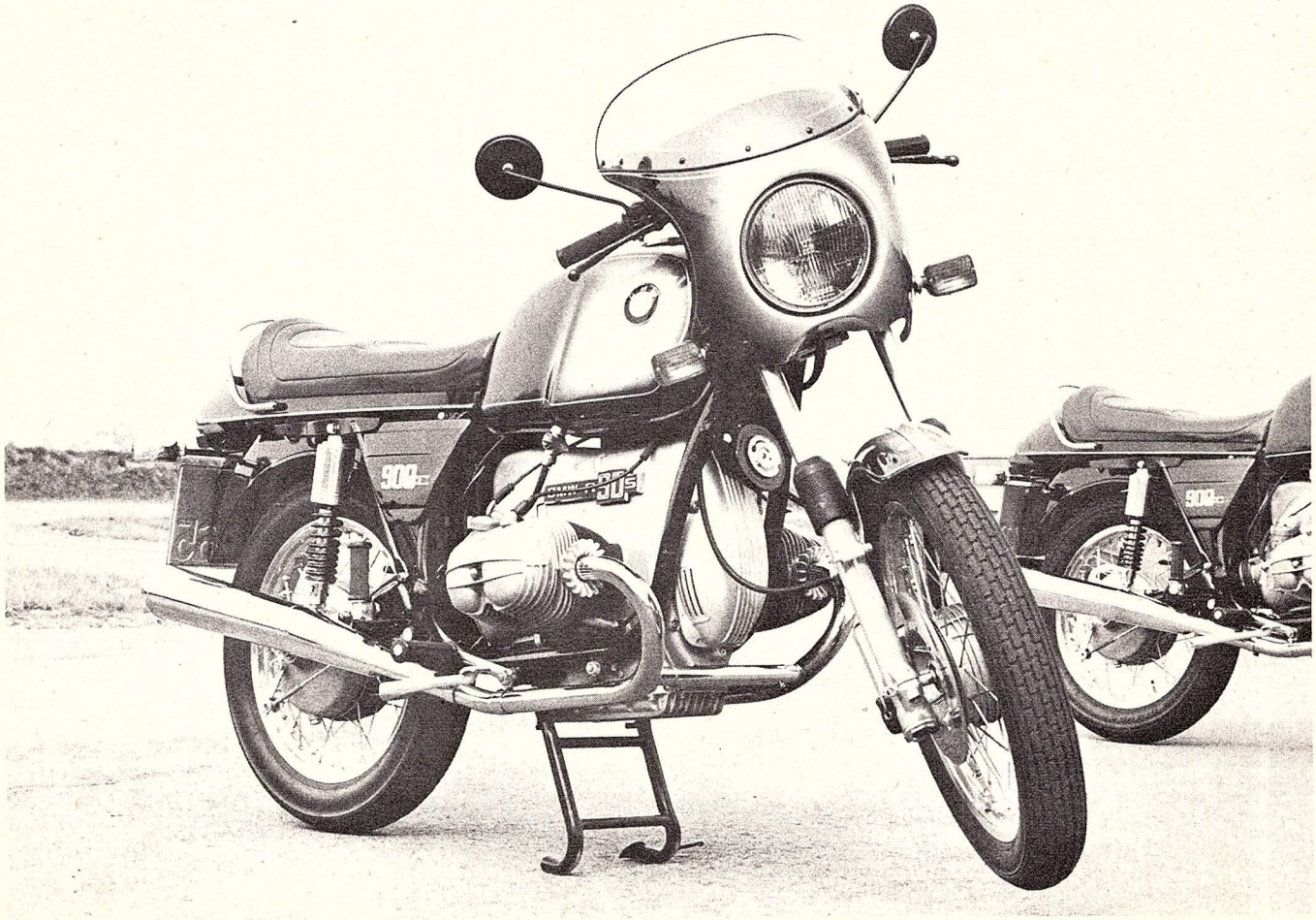
1974 BMW



BMW GETS BIGGER FOR 1974

By Gordon Karrel
Photography by Walt Fulton, Jr.





Conservative—BMW. BMW—Conservative. For many years the initials and the word were almost interchangeable. BMW's were black, they had white pin striping, a cylinder stuck out on either side, and, year after year, they looked pretty much the same. BMW's were smooth, quiet, well mannered and sedate. (All these adjectives might be just as well applied to the BMW owners of the era.)

Then, a couple of years ago, things started to happen to the conservative BMW image. First, COLORS! Then (ugh), CHROME! Finally, and most important, PERFORMANCE! Someone at BMW had decided to get with the program and try to regain some of the potential BMW buyers who had been lured away by the promise of sparkling performance made by the bigger machines from Japan. The BMW move into the performance, or super bike, field was not radical, rather it was a well thought out plan to retain the dyed-in-the-wool BMW enthusiast, while, at the same time, attracting new converts to the fold. The BMW bikes for 1974 are a good indication that the plan is working.

Three models of BMW are available for 1974. Two are machines that are not really new, but rather existing models which have been improved and modified. The third machine, available in two configurations, is the big news; a 900cc opposed twin that puts BMW right in the middle of the super bike market.

The three models are known as the R60/6, the R75/6, and the R90/6. The super sporty version of the 900cc machine is designated the R90/S. Common to all of the bikes is a new five-speed gearbox that effectively does away with a BMW legend . . . no longer does the transmission emit a loud clunk as changes are made! The transmission, and a basic design concept, are about all that is common on all three bikes.

The R60/6 retains the 7.8 inch double leading shoe internal expanding front brake used on last year's model. The R75/6 and the R90/6 are fitted with a single disc brake at the front, and the R90/S comes with a double disc front stopper. All of the BMW brakes, be they internal expanding, single disc or double disc, are sensitive without being grabby. The master cylinder for the hydraulic discs is mounted beneath the gastanks on the respective machines, and they're actuated by a cable running to the usual handlebar-mounted lever.

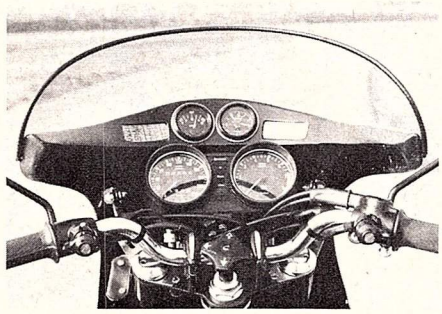
Our earlier comment about garish paint and chrome paneling does not apply to the '74 Bee Ems. Other design changes have resulted in cleaner looking bikes. The headlight nacelle has been restyled, and dual instruments appear where once we found the speedometer and tach jammed into the same unit. Idiot lights abound: there's a neutral light, a turn indicator light, a high beam indicator light, and a little warning light that goes on when the fluid in the master cylinder drops below a certain level. Both instruments are canted back at an angle that allows them to be easily read. Finally, a long time BMW tradition seems to have been laid to rest; the new Bee Ems come with a regular ignition key instead of the long slender plug that has masqueraded as a key for lo these many years.

Styling changes have also improved the rear quarter of the 1974 BMW's. The exhaust pipes sweep up even more radically than they did on the '73 models, and the mufflers look like megaphones, right down to a bit of reverse taper right on the ends. (This new pipe arrangement certainly looks sporty, but we can't help but wonder what bearing the muffler location is going to have on the mounting of saddle bags. BMW's are famed as excellent touring machines, and a lot of owners are going to want to mount panniers.) Needless to say, the muffling sets a standard that the rest of the motorcycle industry might shoot for.

A 4.7 gallon capacity gas tank is standard on the R60/6, the R75/6 and the R90/6. The R90/S comes with a 6.3 gallon tank that should make high speed touring a real pleasure.

With the basic similarities and differences out of the way, let's look at the new machines, model by model.

With the exception of the changes already mentioned, the R60/6 remains much as it was for 1973. The improved gearbox is a blessing, and the 26mm slide type Bing carburetors offer very smooth blending. The factory claims 46 horsepower for the peasant model BMW.



The R75/6, the top of last year's BMW line, is said to pump out 57 horsepower, it's six miles an hour faster than the little one, and, for some reason, probably carburetion, it delivers slightly better gas mileage.

Next up in size is the RD90/6, a move that represents BMW's intentions to seriously contest the super bike field. BMW claims a top speed of 117 mph for the R90/6, with a maximum 69 horsepower developing at 6700 revolutions per minute. Were it not for the little identification plates mounted on either side of the engine shroud it would be impossible to tell the difference between the R75/6 and the R90/6 (without riding them, that is!).

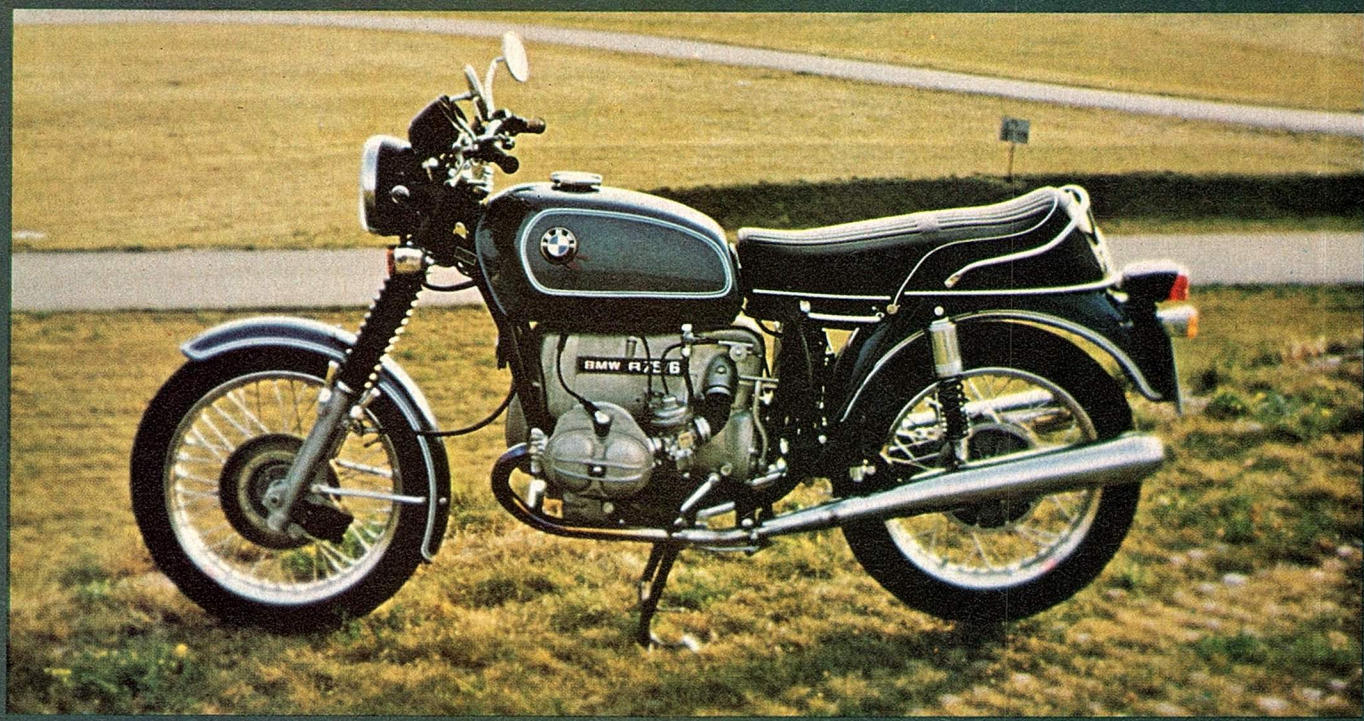
This brings us to the big news from BMW . . . . the R90/S. For some time now speculation has had BMW coming out with everything from the first commercially available Wankel powered motorcycle, to a new flat four utilizing the common reciprocating pistons. What has finally emerged is impressive in its own right. First off, the BMW Biggie looks great. The silver paint blending gradually into the glossy black is very handsome, the dolphin fairing looks extremely sporty, and, overall, the 900 BMW has the appearance of a very elegant cafe racer.

Rider comfort on the big sport model is very good. The seat is "flatter" than that mounted on the other models, meaning that the rider does not slide slowly toward the tank as the miles click away. By flat we don't mean to say that the seat is uncomfortable; it's not, it just works better than the saddles on the other BMW's. Tha dolphin fairing may look good, but it doesn't do a helluva lot of good for the rider, unless he or she likes to ride in the "tucked-in" position.

Wet, the R90/S is said to weigh 475 pounds, and a top speed of 126 miles per hour is claimed. The engine features a bore of 90mm and a stroke of 70.6mm; the compression ratio is a relatively mild 9.5:1. Carburetion on the big sport snorter is provided by a pair of 38mm Dellorto blenders, and response is quite good. Engine width throughout the 1974 BMW line has been kept the same. How? By a very simple engineering constant. All three engines have the same stroke; only the bore varies. Thus, all of the engines can be kept to a 29-inch width.

Suspension on the 1974 Bee Ems

The folks from Bavaria enter the second half century of building horizontally opposed twins with a pair of new 900s.

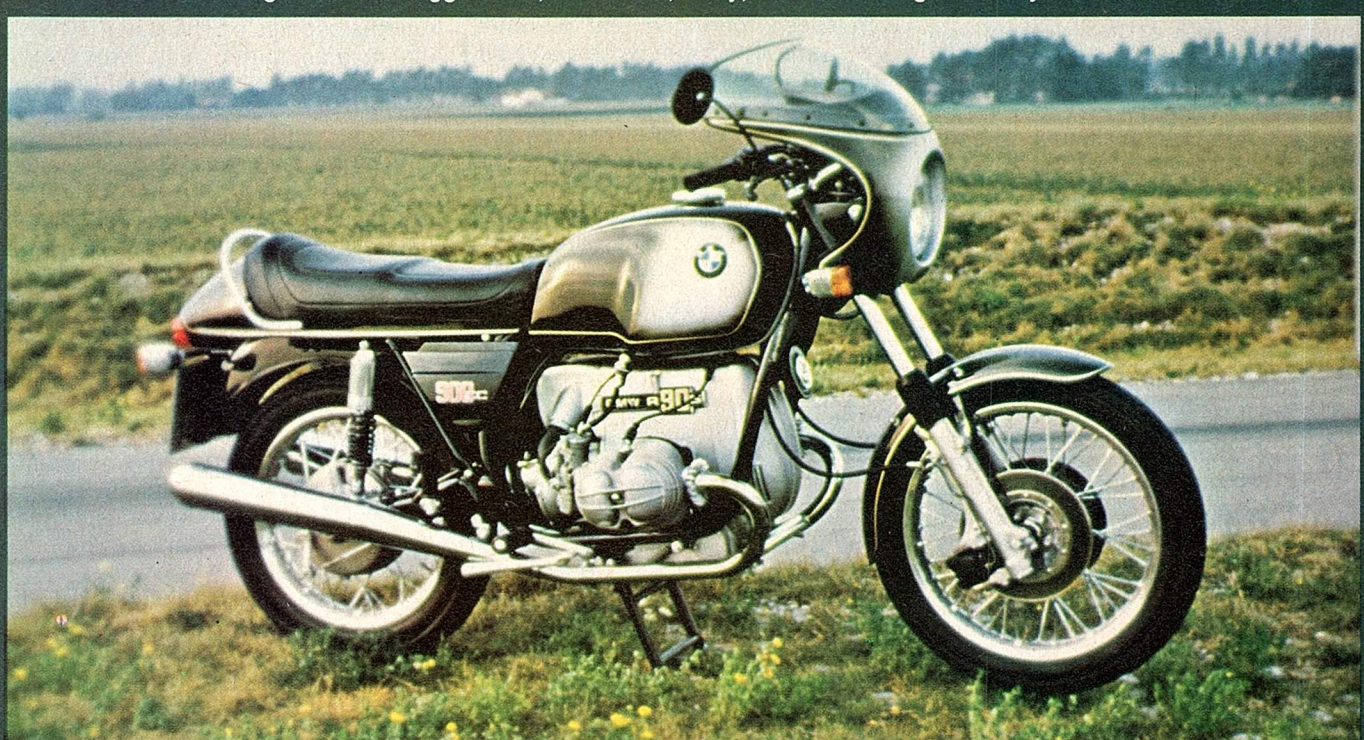


is good; as it has been on all models in the BMW line for several years. The front forks offer a full eight inches of travel, and the rear dampers give four inches of movement. Does that give some clue as to why the BMW has such an outstanding reputation as a touring machine? Adding its own part to the smooth ride of the BMW's is the very stable frame. The double cradle pipe device is robust, and free from flex, giving a very high degree of road-holding and steering accuracy.

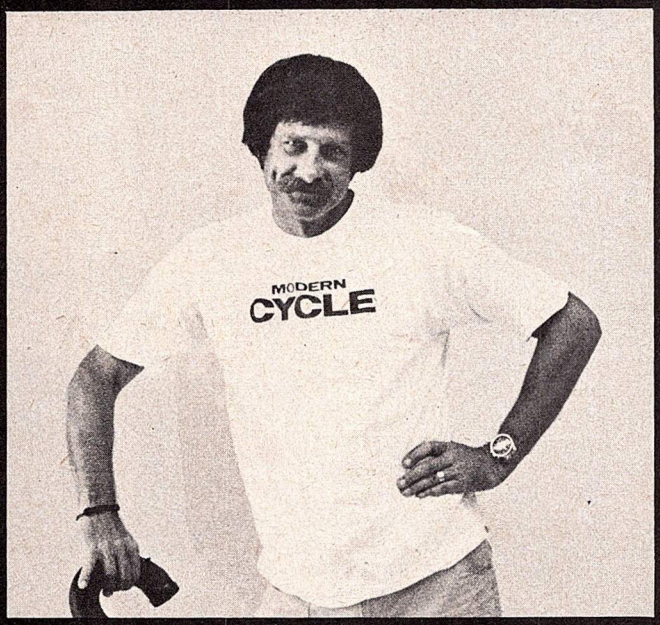
All of the new 1974 BMW's are exciting, but certainly the most interesting bikes in the line are the big 900's. The biggest 900, the R90/S, has another interesting feature . . . . its price. At the present time the biggest BMW is said to have one of the biggest price tags in motorcycling (over $3,000 . . . that's pretty heavy freight!).

The 1974 offerings from BMW indicate that their plans for expanding their market have born fruit. The new bikes are an exciting blend of sedate tourer and super bike. The R60/6 is for the rider who wants to noodle down the pike in quiet comfort; the R90/S is for the guy who wants to make it over the same stretch of road in the shortest possible time.

It looks like BMW, in their own way, has something for everyone. ●



THIS MAN CROSSED THE SAHARA FOR YOU



You know him. Sure you do. *Modern Cycle's* own Gordon Goodhart. Oh, sure, maybe he was participating in Hogo Boom's Trans-Sahara Land Yacht Rally, but all the while he had his eyes and ears open (which is not always the easiest thing to do on a land yacht) looking for the latest info relating to the wonderful world of motorcycles. He took his subscription order book along, and solicited comments about how to improve the magazine from subscribers and newsstand readers he met along the way. With this kind of dedication, it's easy to see why *Modern Cycle* offers the reader more in-depth coverage of North African motorcycling than any other magazine available today, including Arabian Stallion.

Don't let Goodhart think his journey was in vain. Show him you're behind him, and send along a check or money order for a subscription today. A little personal note scribbled across the check saying: "Thanks, Gordo," will let him know you really care.

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The $396 Question:

In the beginning there was Torsten Hallman!

Hallman begat Röbert and Bickers and DeCoster, who, in turn, begat Bengt and Ake and Jiri and Arne. These riders went forth and, in their turn, begat even more motocross riders, and soon the face of the land seemed to be covered with motocross riders.

The motocross riders multiplied and became prosperous and their lot was good.

Only once before have so many owed so much to so few!

So much for the silly parable; even if it is vaguely accurate.

The Japanese motorcycle manufacturers, Honda in particular, created a motorcycle industry, as we know it today, in this country. Small European manufacturers supplied the demand for quality motocross machinery. The Japanese companies built machines designed to meet the needs of a new and rapidly expanding market. These bikes were sold by millions. In Europe, Husqvarna, CZ, Maico, Greeves, Montesa and Bultaco built racing machines which delighted the hearts of the racing enthusiasts. These bikes did not sell by the millions! But, if you wanted to race successfully in motocross, you had to have one. The Japanese giants marketed pseudo racers which could be ridden in the dirt, but they weren't the real thing. The European constructors had a corner on a small segment of the market.

Then, early in 1973, all of that changed! Honda Motor Company introduced a 250cc two-stroke motocross racer called the Elsinore. (Why they chose to name their bike after an obscure castle in Denmark we'll never know!) This one machine has completely altered the face of motocross racing in this country.

Honda has always been aware of the benefits of racing successes. Honda's original reputation was based on the outstanding performance of their racers on the International Grand Prix road race circuits in the early 1960's. Honda likes to win big, and they like to win right from the start. With the Elsinore they have a machine that will do both.

What about the other three Japanese motorcycle giants? Well, that's kind of a mixed bag.

First to successfully field a motocross machine was Suzuki, but, and that's a big but, it was, and remains, a factory racing machine; not available to the public. Suzuki has had remarkable and well deserved success in the tough arena of World's Championship moto-

amaha's new "factory replica" YZ 250 better than Honda's CR 250M Elsinore?

cross. Unfortunately, the Suzukis that the consumer can purchase bear little resemblance to those ridden by Joel Robert and Roger DeCoster. Regardless, Suzuki has proved that they can build a world caliber motocross racer.

Kawasaki is getting into the European motocross game, and they are offering the American buyer a series of 'crossers that seem well equipped to get the job done. Brad Lackey, in particular, has turned in some impressive performances on the Big Green singles.

Yamaha was the first Japanese firm to come out with a halfway decent dirt bike (remember the DT-1?), but it was still something of a compromise; really a dual purpose motorcycle. In more recent years Yamaha has marketed a line of MX machines that have served to get a lot of riders involved in the sport of motocross.

Yamaha's interest in motocross has accelerated in recent years, and their efforts in the sport were rewarded this year with their winning the 250cc World Motocross Championship. In keeping with their increased involvement in motocross racing, Yamaha, in 1973, offered a series of bikes bearing the designation YZ. The 250 YZ is commonly referred to as a Replica, meaning to most people that it closely resembles factory racing equipment. Of course, the real factory machines are hellishly expensive. The last time we heard, the Suzuki factory bikes were valued at $15,000 apiece. With this in mind, it's obvious that a "replica" can be anything the manufacturer wants to make it.

The first thing that makes you think that the Yamaha 250 YZ is a serious racer is the price: $1,600. (The original suggested retail price was even higher, at $1,800.) Nobody pays this kind of money for a racing machine that won't do the job. After the initial shock (brought on by learning the price of the machine) passes, you can begin to examine and appreciate some of the other features of the YZ.

The new Yamaha is very light, it's very fast, and it handles!

The Honda Elsinore is also very light, it's very fast, and it too handles! The question that immediately comes to mind is: "What does the Yamaha have, if anything, that makes it worth over four hundred dollars more than the Honda?" Well, at least, that's the question that first occurred to us. Join us on the following pages as we compare the two machines and come up with some interesting and enlightening answers. ●

HONDA CR 250M ELSINORE

Is the most economical Really Good 250 production racer around really named for an obscure castle in Denmark?

Back in the dim dark ages, Honda produced a motorcycle called the Dream. (In retrospect, it wasn't.) In 1973 Honda produced a machine which was not called the Dream . . . but, in point of fact, it was (and is) a *Dream.* The machine we refer to is the 250cc Elsinore, and it is about as sophisticated a special purpose machine as the average Joe can buy. The CR250 is a motocross racer, and short of the trick factory stuff, it's one of the best things going.

For years Honda has had the reputation for being a bastion of four-cycle technology. In fact, a popular folk legend had it that Mister Honda had sworn that the company that bore his name would never be guilty of building a two-stroke engine. Those who started the rumors which fostered the legend obviously weren't aware of the fact that the first machines every produced by Honda were powered by two-cycle engines. Two-cycle or four-cycle, when it comes right down to the nitty gritty, Honda produces what is needed to get the job done. In motocross racing, the two-stroke reigns supreme. When Honda made the decision to get into motocross, it was only logical that the two-stroke was the way to go.

Honda is nothing if not efficient. Just a brief look at the Elsinore will prove to anyone's satisfaction that the machine was not clubbed together to satisfy the desires of a new segment of the buying public. The 250 Honda is a well thought out machine, and while it arrived on the scene with a minimum of fanfare, it's a safe bet that it was several years in the designing and testing stages.

Several other things about the Elsinore are clues to the serious feelings that Honda has about the machine. First is the designation CR, which is used in the official name of the machine. Traditionally, Honda reserves these initials for machines that are expected to add to the Honda reputation for excellent racing bikes. The other clue was the use of the "flying wing" logo on the gas tank of the Elsinore. It seems that the Old Man has some strong feelings about the use of this emblem. Think about it; it hadn't appeared on many of the Honda products in recent years. Yet, when a serious racing machine rolls off the line, it invariably carries the "flying wing."

Yes, the Honda CR250 Elsinore is a serious dirt racing bike! It also bristles with interesting engineering features.

First off, Honda doesn't make any exorbitant horsepower claims. In fact, if you were to believe the claims of other manufacturers, you might think that the Elsinore is badly underpowered. After all, under thirty horsepower (at the rear wheel), at

CYCLE

7,500 doesn't sound all that great. A lot of other bikes are said to produce a lot more power, but just one ride on the Elsinore will set you wondering about the validity of horsepower claims. The CR250 goes like a jet!

Of course, a lot of bikes go like a jet, and that's all well and good until the rider happens to come to a rough spot in the course or a series of bends, when a quality known as handling comes into play. Any competent rider knows that a slightly slower bike that handles well will beat a rocket ship that handles like a slug. Beyond a certain point, handling is the name of the game in motocross. The Honda 250 combines these two requisites, speed and handling, to a very high degree. Suspension and frame geometry are the basics that determine the handling of any bike.

Honda's suspension is very well conceived. The rear shocks, long a weak point on machines of Japanese manufacture, are about as good as any you're likely to find. The dampers are five-way adjustable, they offer 4.1 inches of travel, and those on our test bike showed remarkable resistance to sacking and heat fatigue. Each shock is fitted with two springs, a long one and a short one, that act as one progressively wound spring. Part of the resistance to heat fatigue can be traced to the construction of the shock bodies. Four long cooling fins are an integral part of each body, and the bodies themselves are a bit larger in diameter than normal. Because of this, more damping fluid can be carried, and it can be cooled more rapidly.

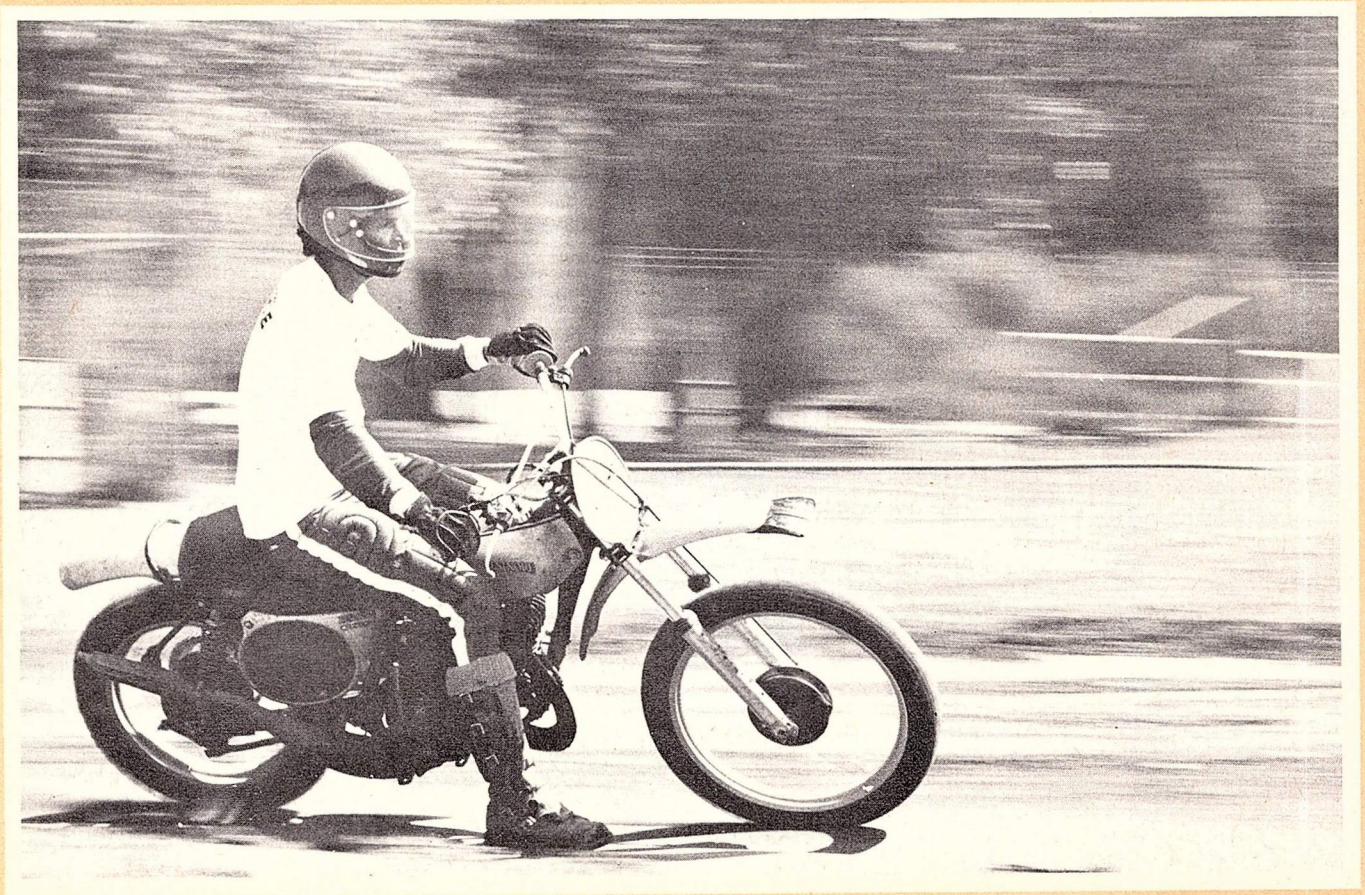
The front forks on the Honda provide 7.1 inches of travel, and they do an oustanding job of absorbing punishment. The triple clamp and crown that secure the fork legs are of light alloy. Portions of the triple clamp are cut away in an effort to reduce weight, and pairs of pinch bolts assure that the fork legs will remain where the rider wants them. The Honda fork mounting assembly is an excellent example of lightness coupled with strength.

There's a good reason for those paired pinch bolts we just mentioned. The triple clamp and crown are designed to allow the fork legs to be moved up or down, a move that will either decrease or increase the rake and trail. To allow the owner to accurately align the fork legs, five reference grooves are cut near the tops of the tubes. By sliding the fork legs upward, the bike is lowered and the trail is decreased or shortened. Pushing the tubes downward, raises the machine and increases the trail. Decreasing the trial quickens the handling and makes it easier to bend the machine through tight turns. These are fine characteristics for a motocross racer. Increasing the trail (really, lenghtening the bike), makes the bike more efficient for desert-type racing; the bike is stable in a straight line, and any propensity toward tail wagging is curbed.

Taken as a whole, the Honda Elsinore 250 suspension is very impressive. Riding fast over almost any type of terrain is an almost secure experience. Whoop-de-doos seem to be reduced in size, and pot holes seem to get shallower. Obviously, the shocks and the front forks were designed with just one thought in mind: they were also designed to compliment one another . . . a very important consideration.

There was a time, not too long ago, when Honda had a reputation for building the strongest frames in the industry. Unfortunately, these frames were also among the heaviest to be found. This is, certainly, not the case with the Elsinore 250. The CR250 goes together around a tubular steel chrome moly frame that is remarkably free from flex. The frame is strong, it's light, and it's rigid.

At 57.5 inches the wheelbase is definitely on the long side, yet the swinging arm is surprisingly short at 18.5 inches. Looking at some of these basic figures it's hard to tell why the thing handles as well as it does. Of course, the awesome power



of the engine has a great deal to do with the fine handling. Being able to dial in front end lightness is a real plus. The CR250 also carries much of its weight low and to the rear (relatively speaking). This, too, accounts in part for that lightness of feel. However, we must once again state that the power of the engine has a great deal to do with the manner in which the Elsinore handles.

We're not talking about brute power so much. . . . It's more a case of outstanding throttle response and the ability to build revs at an amazing rate. The bike doesn't feel at all pipey, it just kind of takes off like a berserk turbine. We feel that, basically, two things account for the quality of the throttle response: the pipe and the carburetor. The 34mm Keihin blender is an all new unit that bristles with minor innovations that add up to a major motorcycle component. The main jet is located in a cavity cast in the center of the aluminum carburetor body. In this location the jet is protected from any ebb and flow of fuel caused by bumps on the track. It's something like having a baffle to assure a constant supply of premix. The float chamber is quite large, and a neoprene seal is used between the float cover and the body of the carburetor. The idle, air correction, and main jets are all easily removed, allowing for really fine tuning. The dual floats are made from a plastic foam, and the slide is chrome plated brass.

The cylinder is a large alloy casting fitted with a pressed in iron liner. The ports are generous, and the exhaust passages are particularly noteworthy. A wide bridge separates the exhaust port, effectively cutting it in two. Each half has a widened area at the top, and the tops are flattened off. Engineering types tell us that this configuration helps get the spent gases out of the combustion chamber at an accelerated rate.

Until you turn it over, the cylinder head appears to be a conventional alloy casting. An examination of the underside discloses a series of angled fins which directs cooling air toward hot spots and helps cool the head and barrel. The head is held in place with four large cap nuts, plus four slightly smaller studs. In addition, two locating studs align the head of the cylinder. It seems a safe bet that leakage or warpage are not going to be problems.

Even when new, the CR250 piston has a slightly used appearance. The etched surface on the piston is covered with microscopic pits which help retain oil and aid lubrication between the piston skirts and the cylinder wall. Paired rings provide the sealing between the wall and the piston. These rings are extremely strong and, more important, extremely flexible. Ring breakage should be a rare occurrence.

An "H" section rod connects the piston to the crankshaft. The big end of the rod is slotted to aid lubrication of the big end bearing. The crankshaft itself is something of a departure from currently accepted design practices. Most manufacturers, in an effort to increase crankcase pressure, really "stuff" the crankcase. The wheels on the crank are usually quite wide, and any balancing holes are filled. A close examination of the CR250 crank leads us to believe that Honda isn't too concerned with a tremendous amount of crankcase pressure. Any tendency that the crank might have toward flexing is controlled by a pair of absolutely huge ball bearings.

Primary drive is taken off the right end of the crank. Drive between the crank and the clutch housing is by gear, and the clutch itself doesn't appear to be anything out of the ordinary. The only thing about the clutch that was remotely off-beat was the way in which the friction plates are formed. The grooves between the friction surfaces were cut away at an angle, rather than in a straight line. An attempt, it seems, to aid the spinning clutch throw off oil and provide maximum frictional grab. Inboard from the clutch, nestled in its own compartment, is the five-speed close ratio transmission. What is most impressive about the gearbox is the care with which it is constructed and installed, and the smoothness with which it functions. The trans can be shifted quickly and effortlessly, with or without the clutch.

Just the lightest tap on the shift lever is all that's required to make gear changes. At first this can be something of a minor problem. Initially, we had a lot of trouble finding neutral when the machine was at a standstill; after we got used to the "feel" of the trans, we were in good shape. We also found that when we were first riding the machine we had a tendency to accidentally tap the shift lever with the side of out boot. This, usually, resulted in an unwanted gear change. Again, it was simply a matter of getting used to the bike.

The left end of the crankshaft provides the drive making equipment. Honda has chosen to use a conventional magneto arrangement, in an unconventional configuration. The usual magnet carrying flywheel is

HONDA

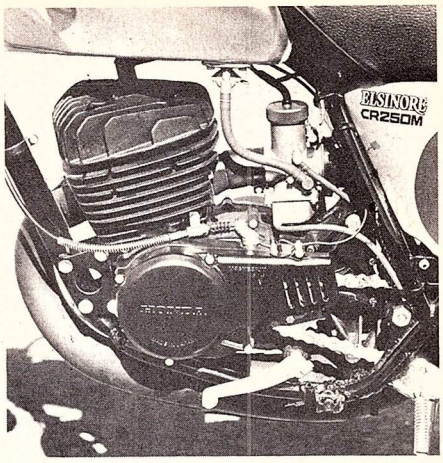
absent. Instead, the rigidly mounted coils have been moved away from the centerline of the crank shaft, and the steel "collar," which carries the magnets, has been slipped over the end of the shaft. The reduction in weight is considerable, and the absence of rotating mass accounts, in good part, for the way in which the CR250 engine grabs revs.

The other impressive thing about the spark making equipment on the Elsinore is its ability to withstand water. We took the bike to a twenty-five cent car wash and blew about a buck, squirting water from every conceivable angle. The thing started on the first kick.

So far, nothing we've described in the engine has been radical or revolutionary, yet the performance delivered is awesome. Probably the most impressive single facet of the performance is the width of the power band. Honda suggests that as soon as the bike begins to pull in one gear, change to the next highest gear. It doesn't really sound logical, but it certainly works. Naturally, a combination of things are responsible for the wide power band and the way the bike works. The close ratio gearbox has a lot to do with the performance. The ratios are so close, that very few revs are lost as gear changes are made. Lack of flywheel mass (both magneto flywheel and crankshaft flywheel) also contributes to the performance. The engine isn't expending power turning masses of weight down in the crankcase. The final components that we feel bear directly on the width of the power band are the carburetor and the expansion chamber. Fuel metering is clean and precise, and the engine never hesitates from want of premix.

The power surge comes on lower in the rpm range than with some other motocrossers. Maximum horsepower is almost achieved by 6000 rpms, even though the engine is redlined at 7500. That's another reason why you shift so quickly with the Honda. There's not much point in winding out to the redline when you can get to the next higher gear that much sooner. If the Honda is down off the explosive portion of its power range, it will still pull until the r's whirl on up to the rocket takeoff range. And that happens very quickly.

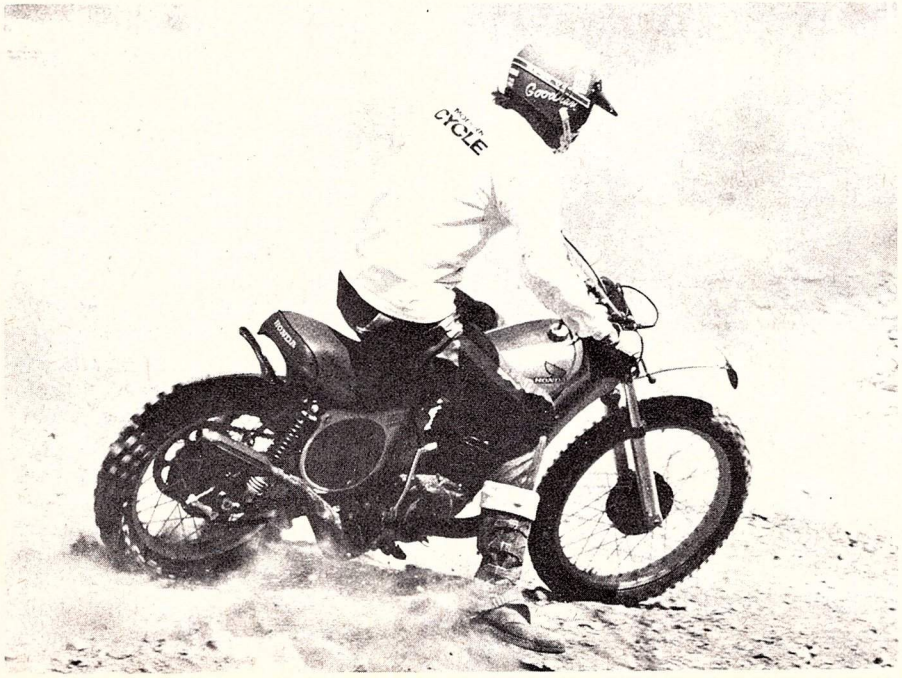
Riding down off the power seems to have no effect as far as possibly "fouling" the plug. We've subjected two test bikes plus a staff bike to low rpm type trail riding and have yet to notice even a hint of "loading up" the plug. We feel this makes the bike very attractive for the non-racing off-roader looking for a super fast play bike that won't foul-up as soon as the rider gets off of the power.



The acceleration produced by the CR 250 engine has to be experienced to be believed. The first impression is that of tremendous torque. (There's that power band and close ratio box again!) The Elsinore comes out of the hole like a shot; in fact, before we did this comparison test it was the fastest acceleration 250 we had ever ridden. No contest. (During our repeated drag racing with the Elsinore and the YZ the two bikes seemed just about even.)

Because of the speed of the bike, it's a good idea to have your head in gear before venturing out onto a race track. You can dial a wheelie at will, and until several practice laps have been racked up, you're liable to find yourself going into turns much too hot. Because it can be ridden in a higher than normal gear, the Elsinore will come out of a turn like a shot. It's not just low gearing that accounts for the way the CR 250 gets off the line; top speed is just over 65 mph. The Elsinore's got speed at both ends of the scale.

Once again, we've got to point out that it's the Elsinore's good handling that allows the rider to fully utilize the fantastic output of the engine . . . and in many ways it's the output of the engine that makes it so easy to hustle the CR250 around a tight twisty course. As long as you keep the bike hustling, it's possible to slide or skate around the turns, rather than having to muscle and steer through them. The explosive power allows you to barrel into a turn, lock up the binders, and then swap the rear end around with a quick application of throttle. Once onto the straight, you keep catching cogs and accelerating, with the front end floating over the rough stuff that usually metes out so much punishment.



Another feature that makes the Elsinore so quick, believe it or not, around a race course is the braking system. The binders don't appear to be anything out of the ordinary; no trick floating backing plates or anything of that sort. In fact, both brakes are cable operated. Regardless, the light alloy hubs house one of the most efficient braking systems to be found on a dirt bike. The rear brake gives the rider a good sense of "feel" and, unless the pedal is really jammed on, rear end lock-up is easily avoided. The pedal itself is an alloy forging (strong and light) that's tucked in quite close to the engine case. A small rubber block on top of the pedal keeps it from chattering on the engine case. (How's that for detailing?)

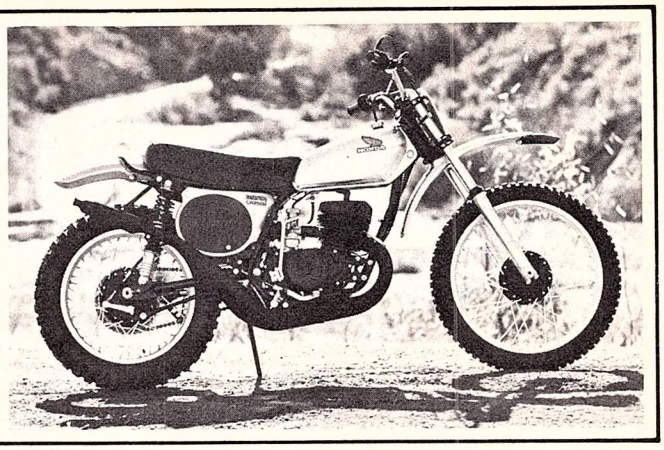
The front brake is equally effective, though it's not the sort of thing you want to grab hard with all five. Two fingers are sufficient to operate the front brake! Get on the front too hard, with the front wheel cocked for a turn, and you're a sure bet to get off on your gourd. (Hell, if you lock-it-up bad enough in a straight line, the plot is liable to throw you on the ground.)

What the fine braking on the Elsinore does do is allow you to wait until the last possible moment before braking for a turn. If you're a rider who has got his act together, you can go into a turn faster, and come out faster. Yes, even brakes can help you go faster!

From what we've said about the CR 250 engine you might think it is a very temperamental beast. Just the opposite proves to be true; the Elsinore power-plant is a real pussycat! Starting, whether hot or cold, is usually a one kick proposition. That one kick is a good healthy one, though. When the thing is cold, it is necessary to use the choke, but the engine will usually fire on the first swing of the start lever. Honda recommends a rather unique approach to starting the engine: the side stand is designed to support the weight of the machine and the rider. Honda suggests you fold the stand down, climb on the bike, balance your weight on the left footpeg, and wail away at the kickstarter. Like everything else Honda told us, it works. (We usually take distributor's puffery with a grain of salt. Honda was right this time, but our basic distrust of advertised figures and claims will continue!)

(Text continued on page 78)

HONDA CR 250M ELSINORE



Engine Type	Single Cylinder Two-Stroke
Bore and Stroke	70 x 64.4mm
Displacement	248cc
Compression Ratio	7.2:1
Engine Red Lines @	7500 rpm
Ignition	Magneto
Starting System	Kick, in Any Gear
Carburetion	34mm Keihin
Lubrication	Pre-Mix
Type of Transmission	Constant Mesh 5-Speed
Clutch	Wet Multi-Plate
Internal Gear Ratios	(1) 2.05, (2) 1.57, (3) 1.25, (4) 1.04, (5) 0.862
Final Ratio	9.55
Countershaft Sprocket	14
Rear Wheel Sprocket	47
Length	84.3 in.
Seat Height	32.7 in.
Wheelbase	57.1 in.
Ground Clearance	7.5 in.
Listed Dry Weight	214 lbs.
Actual Weight, Full Tank of Gas	229 lbs.
Front Tire Size	3.00 x 21 in.
Front Brake Type	Internal Expanding
Front Brake Size	5.6 in.
Rear Tire Size	4.00 x 18 in.
Rear Brake Type	Internal Expanding
Rear Brake Size	5.6 in.
Air Filtration	Washable Foam
Fuel Tank Capacity	1.8 gal.
Gear Box Capacity	1.0 qt.
Front Suspension	Telescoping Double Damping
Rear Suspension	5-Way Adjustable Spring Over Shock
Frame Type	Semi Double Cradle
Exhaust System	Expansion Chamber with Silencer
Color	Silver and Green
Retail Price, Los Angeles	$1197

Distributor
American Honda Motor Co.
100 W. Alondra Blvd.
Gardena, California 90247

IMPRESSIONS

ENGINE	POOR	FAIR	AVERAGE	GOOD	EXCELLENT
STARTING					●
EXHAUST NOISE				●	
MECHANICAL NOISE					●
POWER RANGE					●
ACCELERATION					●
THROTTLE RESPONSE					●
VIBRATION					●
CLUTCH					●
TRANSMISSION					●
CHASSIS					
HANDLING					●
SUSPENSION					●
RIDER COMFORT					●
BRAKES					●
TIRES				●	
CONTROLS					●
STYLING					●
FINISH					●
INSTRUMENTATION					
LIGHTING					
TOOL KIT			●		

YAMAHA YZ 250

Should somebody who has just parted with $1593 really expect to get a Hakan Andersson Replica?

Honda's recent introduction of their Elsinore CR 250 motocross racer rattled more than just a few cages and upset several applecarts. After all, the CR 250 was not only a radical departure from what Honda had preached for many, many years (four-strokes are the only way to go), it was also, at least in our opinion, the best motocross racer available to the retail customers.

Yamaha already had available a 250cc MX machine, it was the competition version of their popular enduro series bike. This machine, considering what it was at the time, was popular; it was inexpensive, it had fair handling and a good turn of power.

After Honda introduced the fantastic 250 Elsinore, it quickly became evident that many manufacturers would have to head back to the drawing boards to try to come up with something to meet the Honda challenge. Now, Yamaha is no stranger to motocross competition. They know what's required, and they are capable of building it (a fact born out by their winning of the 250cc World's Motocross Championship in 1973). Yamaha reacted to Honda's introduction of the Elsinore with their own MX weapon. It's called the YZ 250, and Yamaha claims that it is close to the bikes they used to win that world title.

It has been a long time coming, and at times it seems to have been a struggle, but at last the Japanese manufacturers are building competition machines that are not only pleasing in appearance, but capable of performing with good results in the wild and woolly world of motocross racing.

Yamaha has come up with one of those visual grabbers that immediately draw attention to a motorcycle . . . in this case it's an arrangement of nylon straps that hold the gas tank in place. No big thing, but it gives the bike a no-nonsense appearance. The gas tank is formed of aluminum, it's slender and nicely shaped, and it has a capacity of 1.8 gallons (more than enough fuel for the average motocross race). The small plastic filler cap is molded with an integral vent, and a hose, connected to the vent, carries away sloshing gas. Once the cap is tightened down there is no indication of seepage. However, we did notice that the sealing washer began to distort after the cap was removed and replaced a few times. Perhaps it would be a good idea to carry a few spare washers in the old tool box.

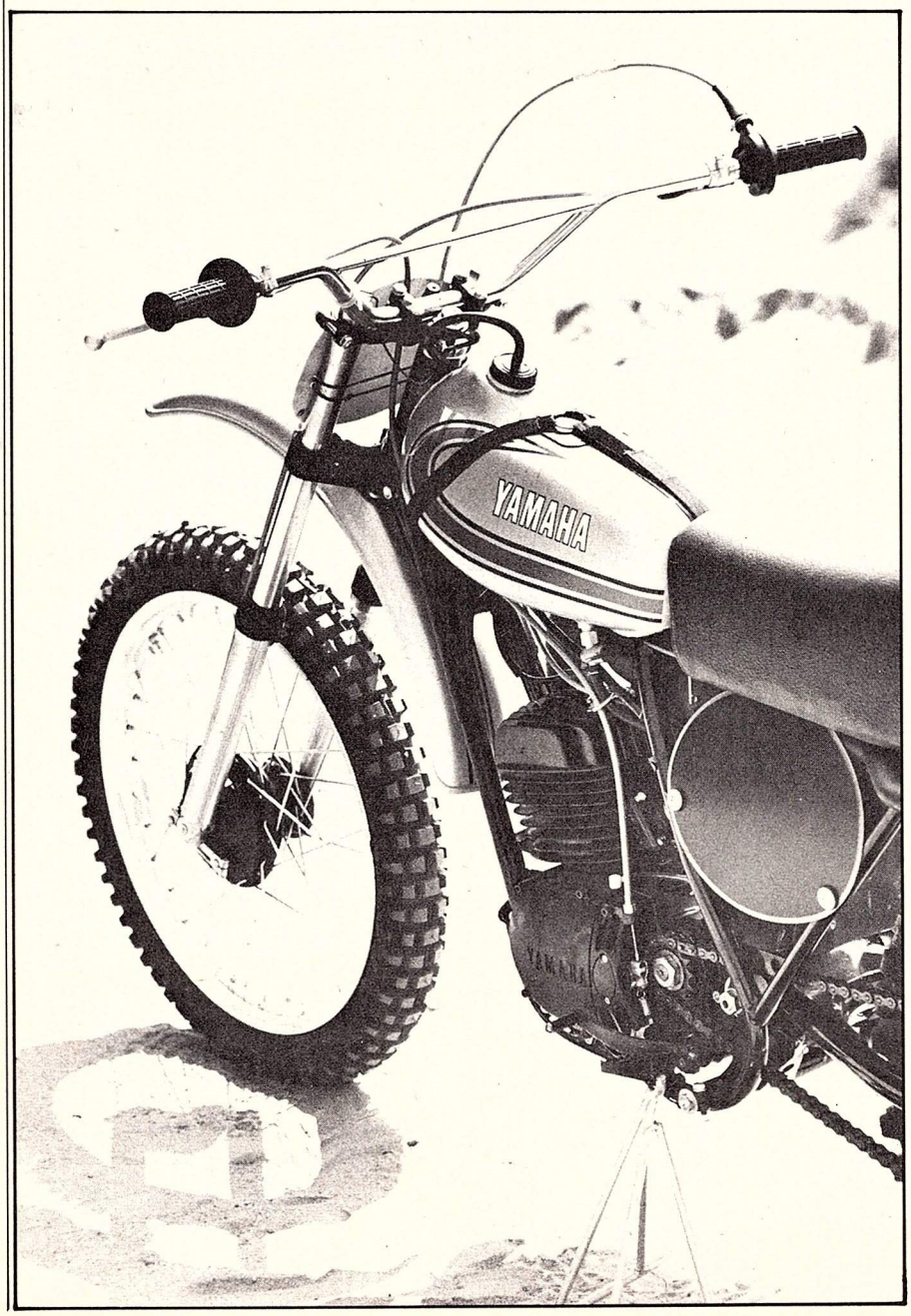
Over the past couple of years, Yamaha has gained a reputation for producing very cushy saddles. This is certainly true with the YZ 250 . . . and that can create something of a problem. Seat height is 34 inches. If you're a moose, this is fine. If you're average sized, or smaller, you're going to have some trouble getting your Full Bores on the ground. The seat is certainly the most comfortable to be found on any motocrosser, it's the sort of thing that an enduro rider would appreciate!

Extremely light, shatter resistant plastic fenders are standard equipment on the YZ 250. Yamaha has also chosen to fit their racer with non-mudding rims. These are produced by Daido, and they were first used by Honda on some of their off-road machines. For wet and muddy conditions, these hoops are a definite asset, as they prevent a build-up of mud on the rim, with the ensuing build-up of unsprung weight.

Both tires are made by Dunlop of Japan; the front is a 3.00x21 inch unit, and the rear measures 4.00x18. Both have a knobby tread pattern: the only logical choice on a machine of this sort. We would like to see something a little larger on the rear of the bike, perhaps a 4.50x18. With the kind of power the YZ puts out it would be a definite advantage to have as much tread as possible on the ground.

The front and rear brakes measure 5.4 and 6.2 inches, respectively. Some riders may find the brakes a

YAMAHA

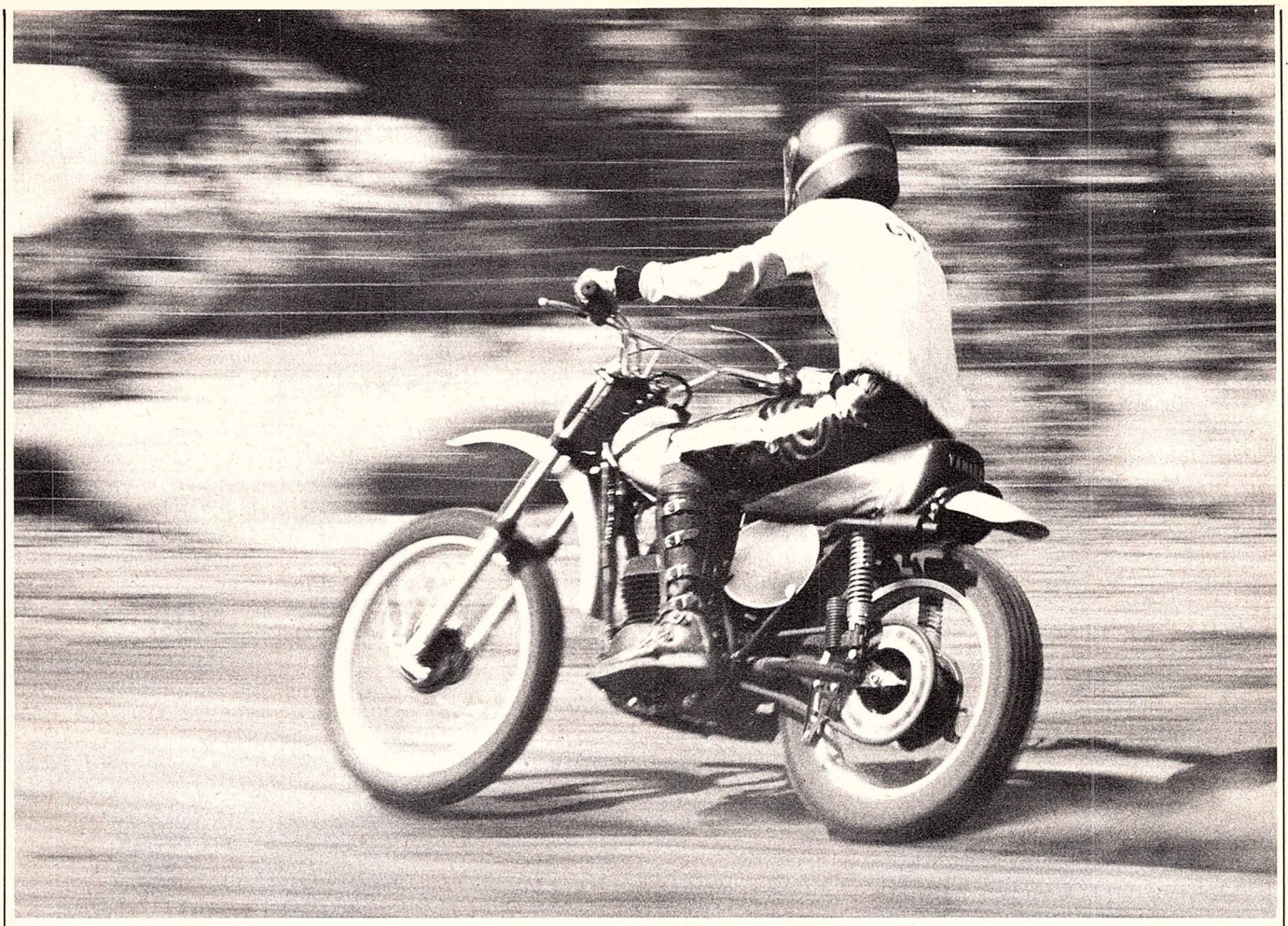


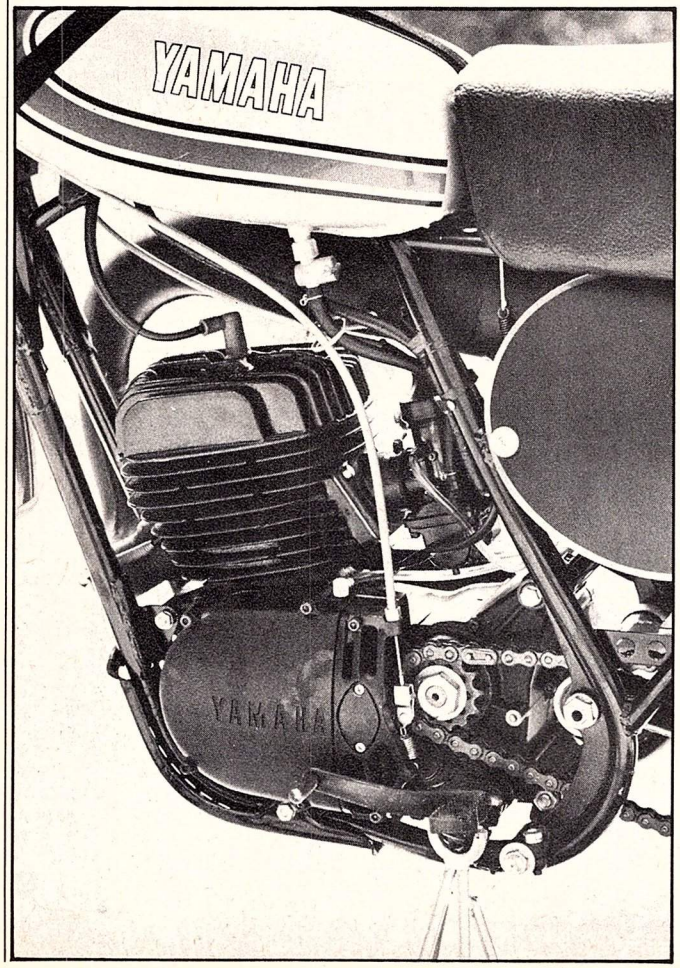
little over sensitive, particularly the rear. However, after we got used to them, we found the brakes to our liking. The operation of both brakes was extremely precise, and the action was positive. At no time during our testing period was it necessary to adjust the binders. The front brake had no tendency to lock-up, and it could be used really hard when entering a corner. Oddly enough, the YZ 250, which is said to be a factory replica, does not have a floating backing plate, while the standard 250 MX comes with one. Curious!

There was a time, not too long ago, when top line riders felt that it was necessary to replace the standard fork assemblies with any one of several accessory units on the market. (Ceriani was the popular choice.) This was due to the fact that the original equipment forks would not function properly under all the abuse and wear and tear they usually received. If the replacement wasn't made, the usual result was a pair of forks with damping fluid running down one, or both legs, due to blown seals. Replacement or modification is certainly not necessary with the Yamaha YZ forks. We feel that they worked extremely well, and offered a good combination of spring rate and damping. The fork tubes are made of steel with a coating of hard chrome for both appearance' sake and to prevent excessive wear on the seals. The slider portions of the fork legs are aluminum casting, and concern over weight is evident in the thinness of the slider walls.

Suspension on the rear of the YZ is provided by a pair of five-way adjustable "Thermal Flow" shock absorbers. These dampers incorporate a large oil reservoir carried in a housing adjacent to the main shock body. Each shock is fitted with two springs, one long and one short, which give the effect of a single progressively wound spring. The suspension system on the Yamaha YZ 250 seems to have been designed as a "whole" rather than as a front fork and a set of rear shocks, but we did find the shocks to be harsh, even for a 150 pounder.

The design used on the YZ frame is the same as that utilized on the double cradle tubework found on the Yamaha MX. The tubing, however, is of an entirely different grade. Instead of the heavier, thick-walled tubing used for the 250 MX, the YZ frame is manufactured from a higher chrome content material with a much thinner wall thickness. Because of this, the frame is considerably lighter, it's strong, and overall weight is reduced. Ground clearance on the YZ is a rather excessive 8.9 inches,

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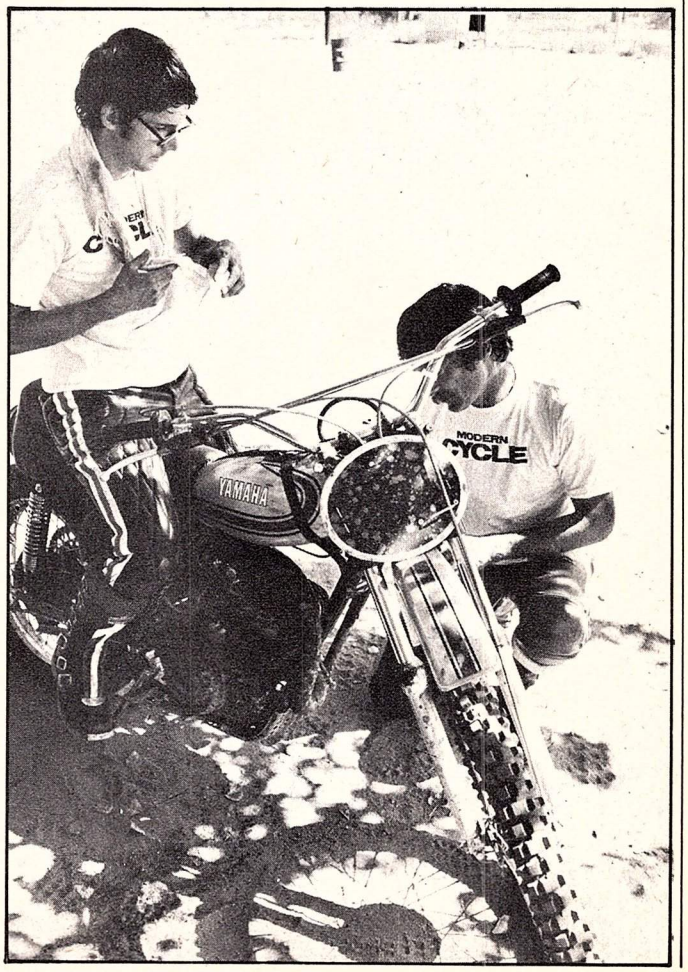
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which guarantees a high center of gravity. However, the disadvantages of the high center of gravity are offset by the light weight of the machine, coupled with the steering geometry designed into the frame. We found the handling and steering characteristics of the YZ 250 to be outstanding. More about that a little later.

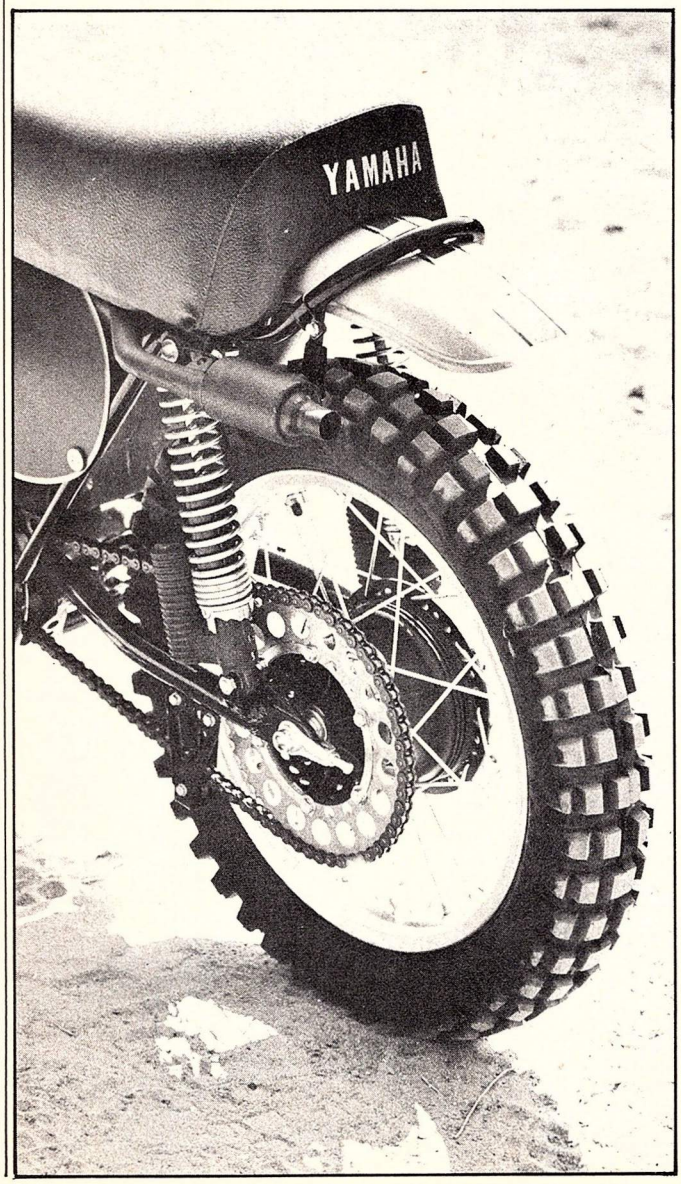
The power plant that propels the YZ 250 features the basic design concepts found in Yamaha's tried and true seven port, single cylinder, two-stroke engine. As do all the Yamaha's dirt bikes, the YZ features Yamaha's exclusive Torque Induction. Coupled to this reed valve system is a 34mm Mikuni carburetor. This is 2mm larger than the blender that is used on the Yamaha 250 MX racer. However, it is the same size as the Keihin carb used on the Honda Elsinore. Another difference between the Yamaha MX and the YZ 250 is the larger air filter fitted to the latter. The filter is fitted with a large, washable foam element and, because of the increase in size, engine breathing is eased.

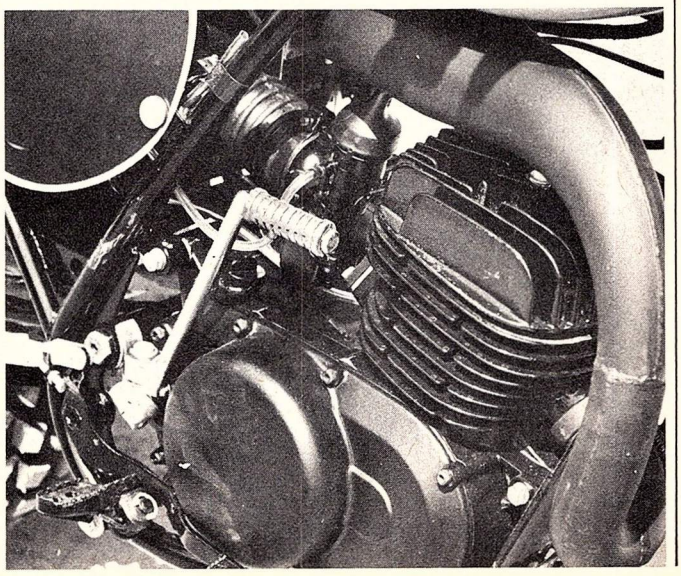
The engine cases used on the YZ are all new for Yamaha. They are narrower and lighter than anything else used in the Yamaha line. Obviously, performance is the reason for these all new cases. Both the cylinder and the cylinder head are cast with increased finning, which allows for improved cooling (a key necessity for acceptable two-stroke performance). The shape of the combustion chamber has been altered to improve the flow of gas through the engine. Unlike many, or most, of the racing two strokes available, the Yamaha YZ 250 utilizes a chrome-lined cylinder. Two benefits come from this feature: a savings in weight and an increase in performance.

The chrome-lined cylinder does have several features that, in some peoples' minds, might be drawbacks. First, it cannot be bored. If you have the misfortune to really stick the engine, you've got to replace the barrel. Also, it's not possible to alter the ports; a touch of the high speed grinder will set the chrome to flaking, and you've got big trouble.

Another difference between the YZ Yamaha and the 250 MX is in the shape of the expansion chamber. The difference in configuration allows the YZ to squeeze out a bit more horsepower, but it comes at the expense of a little width in the power band. Thirty horsepower at 8,000 rpm, and 20.7 foot pounds of torque at 7,000 rpm, is claimed for the 250 MX. The YZ boasts three more horsepower at 8,000 rpm, and 22.5 foot pounds of torque at 7,500 rpm. This gives only a 500 rpm gap between maximum torque and maximum horsepower on the YZ.

In order to make the power band more usable, Yamaha utilizes an extra close ratio five-speed constant mesh transmission. Gear change lever travel is minimal, and each shift is extremely positive . . . providing you can make it. What we mean to say is, each change to a higher gear requires a great deal





of effort. Add to this, a short shift lever with a knurled surface, and you come up with a blister every time. This blister made shifting extremely difficult, as well as painful. Once a gear change was made, there was no possibility of the transmission jumping out of gear. The clutch had a light feel, and the lever required very little pressure when making gear changes. Several second and third gear starts were made with the YZ to check the ruggedness of the wet, multi-plate clutch. As we expected, the clutch was unaffected by this abuse.

When it came to starting, the engine in the YZ proved to be somewhat more temperamental than the power plant in the Honda CR 250. Still, only three, or at the most four, kicks were required to bring the engine to life. When starting the engine cold, it was necessary to make use of the choke.

The primary kick starting feature used on the Yamaha YZ 250 is a real convenience. If you stall the engine, it's only necessary to pull in the clutch lever, instead of finding neutral with the shift lever. Pull in the clutch lever, hit the kick starter, and you're back in business. It's the civilized way to go!

A pointless CDI magneto produces the spark necessary to fire the YZ engine. Surprisingly enough, Honda does not utilize a CDI on their 250 Elsinore, yet their 125 Elsinore comes with one. It almost seems as though they're waiting to see which one proves more reliable.

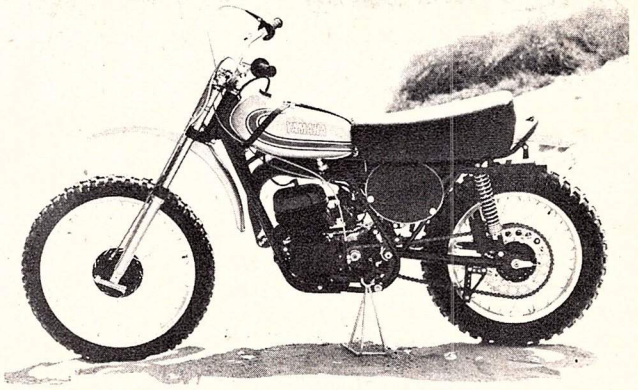
The first thing we noticed upon throwing a leg over the YZ 250 was the extreme height of the saddle. Because of the altitude of the seat, the ground can only be reached by tip toe. The handlebars are 35 inches wide, and lower than we feel comfortable with, particularly while riding in the standing position. Personally, we feel that, in addition to being too low and too wide, the bars are too far forward to have 100% control when sliding in a corner.

Folding, spring-loaded footpegs are positioned in what we consider the proper location. These pegs are serrated and provide good support for the boot, even in wet or muddy conditions. Unlike the 250 MX, the Yamaha YZ 250 relies on a straight mixture of gasoline and oil for lubrication. Because there is no oil pump on the YZ, it's necessary to carry around a can of mixed fuel. During our test period we used the distributor's recommended mix: 20 to 1. Oddly, the factory spec sheet called for 15:1.

During our dual test we pitted the YZ against the CR 250 Honda under all racing situations. After a short get acquainted ride on the YZ, we took it up against the CR 250 in drag racing, starts, and top speed runs. On our first outing, George Etheridge, from American Honda, piloted the CR 250. After several off-the-line starts we switched bikes and did it all over again. The results were almost identical! Later efforts

(Text continued on page 74)

YAMAHA YZ 250



Engine Type	Single Cylinder, Two-Stroke
Bore and Stroke	70 x 64mm
Displacement	246cc
Compression Ratio	7.4:1
Claimed Horsepower	34 hp @ 8000 rpm
Claimed Torque	22.5 ft./lbs. @ 7500 rpm
Engine red lines @	8000 rpm
Ignition	CDI Magneto
Starting System	Kick, in Any Gear
Carburetion	34mm Mikuni
Lubrication	Pre-Mix
Type of Transmission	Costant Mesh 5-Speed
Clutch	Wet Multi-Plate
Internal Gear Ratios	(1) 1.789, (2) 1.409, (3) 1.166, (4) 1.000, (5) 0.857
Final Ratio	10.57
Countershaft Sprocket	13
Rear Wheel Sprocket	52
Length	83.1 in.
Seat Height	34.0 in.
Wheelbase	55.9 in.
Ground Clearance	8.9 in.
Listed Dry Weight	207 lbs.
Actual Weight, Full Tank of Gas	228 lbs.
Front Tire Size	3.00 x 21 in.
Front Brake Type	Internal Expanding
Front Brake Size	5.2 in.
Rear Tire Size	4.00 x 18 in.
Rear Brake Type	Internal Expanding
Rear Brake Size	6.2 in.
Air Filtration	Washable Foam
Fuel Tank Capacity	1.8 gal.
Gear Box Capacity	1000cc
Front Suspension	Telescopic Double Damping
Rear Suspension	5-Way Adjustable Spring Over Shock
Frame Type	Tubular Double Cradle
Exhaust System	Expansion Chamber with Silencer
Colors	Silver with Red and Black Trim
Retail Price, Los Angeles	$1593

Distributor
Yamaha International
6600 Orangethorpe Avenue
Buena Park, California 90620

IMPRESSIONS

ENGINE	POOR	FAIR	AVERAGE	GOOD	EXCELLENT
STARTING				●	
EXHAUST NOISE				●	
MECHANICAL NOISE					●
POWER RANGE				●	
ACCELERATION					●
THROTTLE RESPONSE					●
VIBRATION					●
CLUTCH					●
TRANSMISSION			●		
CHASSIS					
HANDLING					●
SUSPENSION				●	
RIDER COMFORT				●	
BRAKES					●
TIRES				●	
CONTROLS					●
STYLING					●
FINISH					●
INSTRUMENTATION					
LIGHTING					
TOOL KIT			●		

SUMMARY

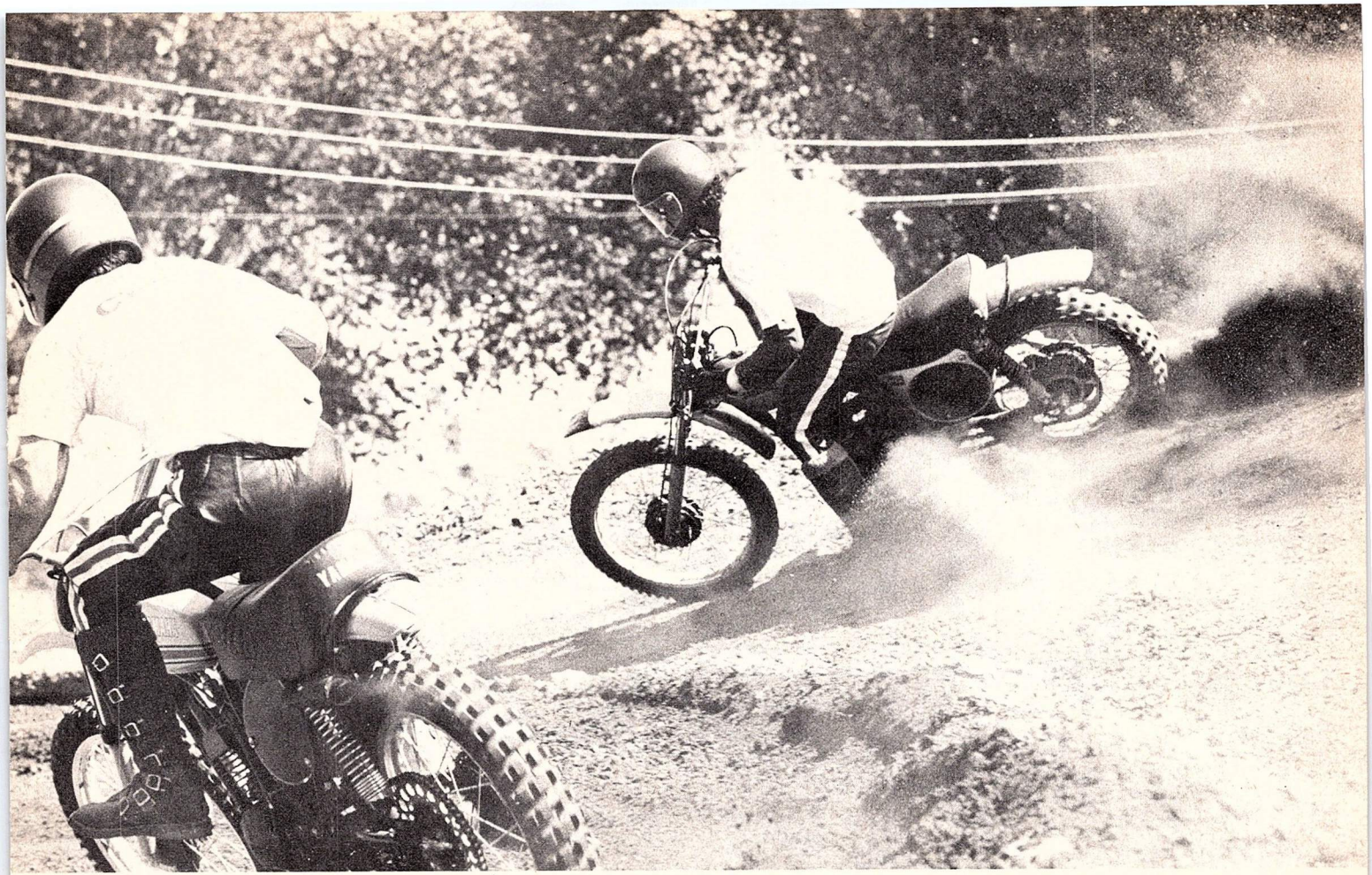
In the great dollars and sense game, just what is loyalty worth?

After wading through both of these tests there are undoubtedly many questions that come to the readers' minds. The biggest is probably, which of these two motocrossers is actually the best? If these two tests were read separately, one would come to the conclusion that the Honda and the Yamaha are both nearly perfect bikes (relatively speaking) and deserve an equal consideration by the person shopping for this type of racing machine. Good or bad points aside, there are always factors that make one machine better than the other in a particular instance, or vice versa. In our final analysis of these two Japanese rocket ships we will compare, point by point, what we consider to be the most important considerations.

In the performance category results can be rather elusive. To eliminate as many variables as possible, we will cover every angle that has a bearing on the performance of these bikes. First, this statement, the power produced by these racers is absolutely fantastic. If both engines are kept in their power ranges, straight line acceleration is equal. We drag raced the two bikes numerous times. Each race consisted of starting from a dead stop and accelerating right on up to top speed. Our test riders switched from one machine to another, standard proceedure to ensure that each bike gets a fair shake. It was obvious to everyone concerned that both the acceleration and top speed of these two top motocrossers was equal, even though the Yamaha boasts a horsepower or two more than the Honda.

Because of the traction, or rather lack of it, second gear was used for all of these comparison starts. Provided each bike was running in the power range, the throttle response was nothing short of instantaneous. Both engines gain revolutions at such an amazing rate that before you know it it's time to shift to the next highest gear. Yamaha's rather standard 34mm Mikuni carburetor, and Honda's really trick 34mm Keihin blender both performed superbly, giving us perfect carburetion over the entire operating range.

Maximum acceleration in a straight line is always a representative indi-



cation of how a machine will perform on a racetrack. It is necessary to be able to get maximum power to the ground throughout an extremely wide range. When Yamaha's dirt bikes came equipped with their Torque Induction (reed valve) several years ago, the general consensus was that it was little more than a sales feature, and, in actuality, would do little to improve the existing power range. This belief, however, proved to be false, as we found from testing several of their Enduro models and RD roadsters. Not only has the low speed performance been improved, but the entire output range has benefitted. Because of this fact we were looking for all sorts of low end power from the YZ 250.

The Honda seems to get much of its power by utilizing a totally different approach in port design. Their intake port is bridged, and the two ports are of different sizes. Half of the port is 5mm lower than the other half. We have been unable to find anyone who can give us a technical reason for this unique type of design. Most possibly, the only one that knows for sure is a computer located somewhere in Japan . . . and it, for sure, isn't talking. Without doing a whole lot of delving and searching in an attempt to come up with the reasons, we're forced to accept the fact that it performs like few other bikes. It has an extremely wide power band, and will pull out of a corner, even with the rpm down in the basement. Because of this low down pulling power it's not necessary to keep the engine turning at maximum revs at all times. Instead, it is possible to drop the engine revs down to almost nothing, allowing the tire to get a good bite on the surface, and then pull out of the corner with amazing strength.

Unfortunately, the Yamaha does not perform in quite the same manner. With the YZ it's most important to keep the engine spinning at a relatively high rate in order to transmit the power from the engine to the rear wheel to the ground. Try it another way and the engine will bog down, making it necessary to go to the next lowest gear to get the engine to rev at the power point.

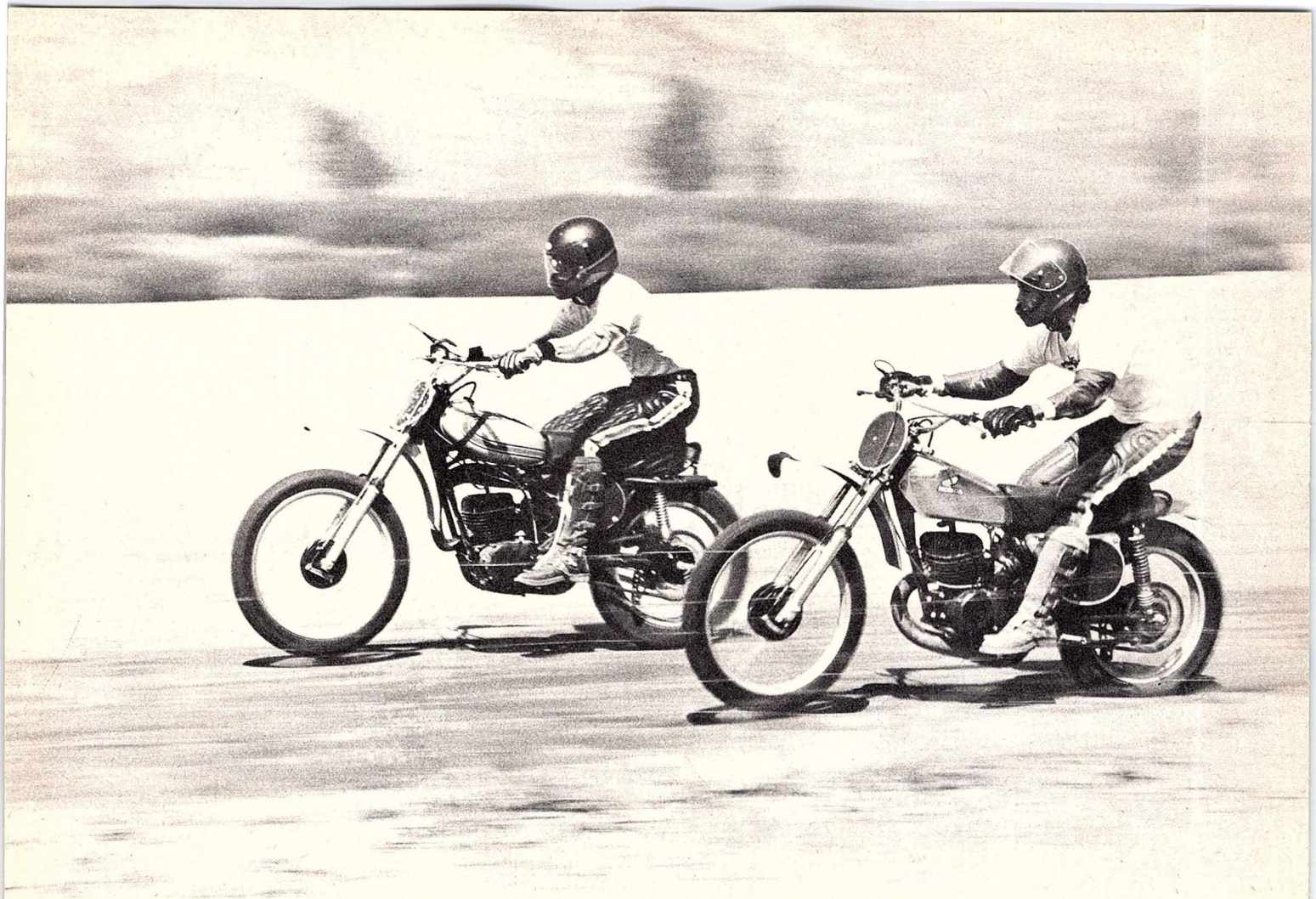
Both the Yamaha and the Honda would make it around our test track in the same time. The Honda, however, was slightly easier to ride, simply because of its low speed pulling capabilities. Both machines come with wet, multi-plate clutches. Once either machine was in motion, it was never necessary to use the clutch to shift either up or down. Operation of the YZ clutch required slightly more pressure than that needed to actuate the Honda clutch lever.

We initially found the gearbox on the YZ extremely difficult to shift. We can only assume that this has to do with the design of the engaging gear. The shift lever, instead of being made from aluminum, is steel and utilizes a very small round, serrated pedal. After the first day of testing, this unit had worn a blister on our big toe, even though it was protected by the heavy leather of our boots. On about the third or fourth outing, the shifting did loosen up.

Conversely, the Honda gearbox shifts like a hot knife cutting through warm butter. The lever is made from aluminum and the flat surface of the pedal is considerably easier on boots and toes! Care must be taken when riding the Honda that the change lever is not accidentally tapped, otherwise either a higher or lower gear will be engaged. That's how easy it is to shift the Honda! We had difficulty at times shifting to a higher cog when accelerating with the Yamaha.

Just for the record, the YZ 250 uses a magneto CDI. Honda has chosen to retain a rather conventional magneto system that utilizes conventional points. Their reasoning behind this is the simplicity that this system offers. Even with the CDI ignition, starting of the Yamaha was slightly more difficult than that of the Honda, and, based on some of our road test experiences in the past, we feel certain that this can be attributed to the reed valve.

The handling characteristics of a motorcycle is a combination of many factors. These include the suspension components that must be tuned

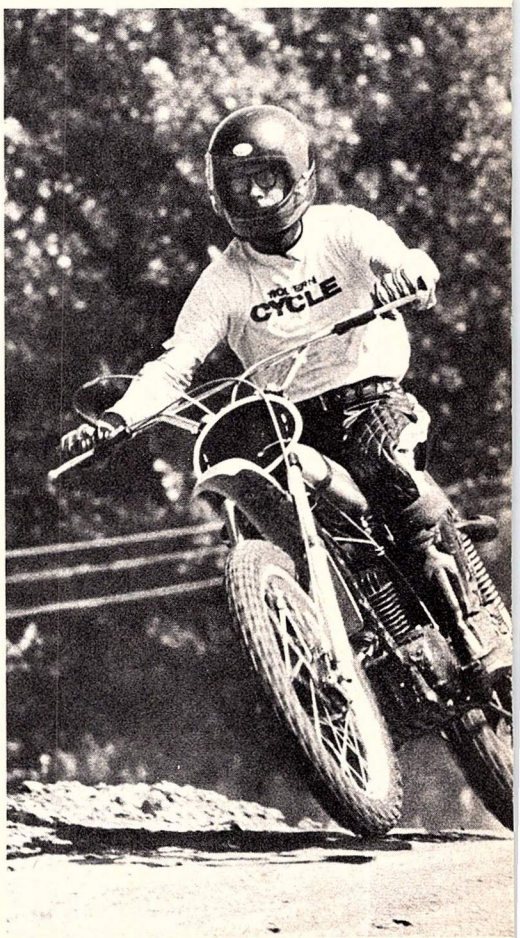


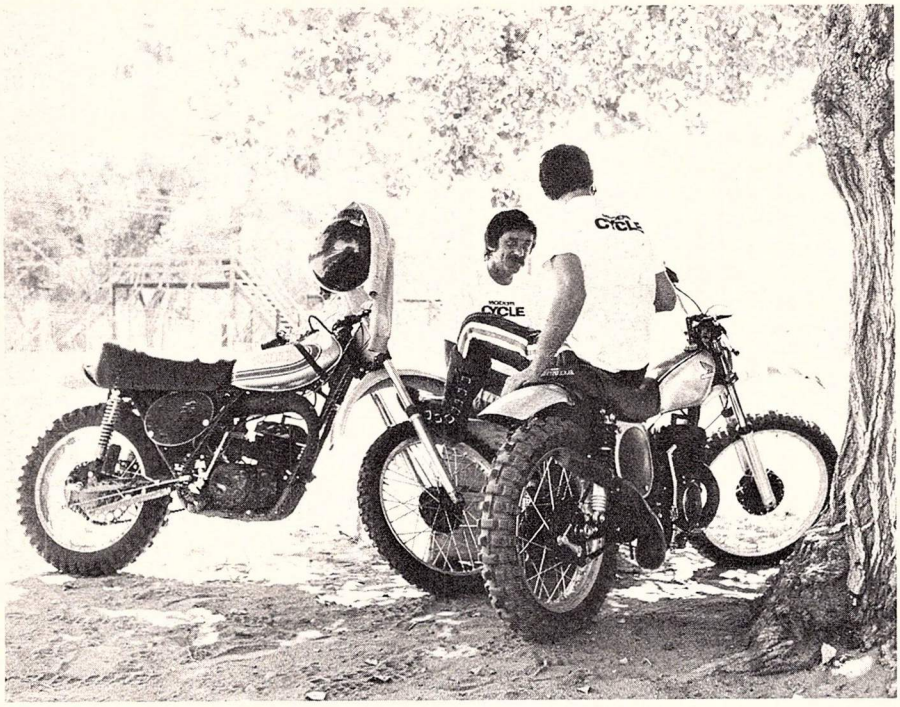
to work with one another, a frame that is rigid enough to withstand all the demands that any competition places on it, and one that also incorporates a steering geometry that will allow the machine to be turned instead of just pointed in one direction.

The tires are also another important factor in the overall evaluation of handling and suitability for any particular use. Upon close inspection it is obvious that both manufacturers have one main thing in mind with their rear shock design, and that is to increase oil capacity and make an effort to keep that oil as cool as possible. Honda's shock casting is one and a half to two times the diameter of a standard shock. There are fins around the lower casting that help carry off, or dissipate any heat buildup that is created by the movement of the shock. Yamaha uses what they call a Thermal Flow shock system. This consists of a large cylinder that is filled with damping oil and also ringed with many fins to help dissipate heat buildup. After quite a bit of use the damping fluid loses its ability to dampen the travel of the shocks. Because of this, and the fact that some riders may want more, or less damping, the shock oil can be changed in both the YZ and CR.

At one time, Japanese forks left a considerable amount to be desired in both strength and operation. Now, however, these suspension units, at least on two Japanese machines, are what we would consider top of the line. They both work exceptionally well and both the spring rate and damping are just about ideal. However, we feel that the forks on the YZ are somewhat stiffer. This stiffness does not detract from the handling. After all our testing, we must admit that both front suspension systems worked equally well.

After spending an extensive amount of time on both machines, there is no question in our minds that both the YZ and the CR have frames that are capable of withstanding all the abuse that any rider can put out. It is also obvious that both frames are built with one thing in mind, that is getting around a corner without the machine doing evil things. The method by which these companies go about this is somewhat different. The CR 250 is relatively low and long. The CR features a wheel base of over 57 inches, which is approximately two inches longer than most bikes utilize. 31½ degrees of head angle is used along with 5.7 inches





of trail. It is obvious that Honda gets away with its long wheelbase and steering geometry simply because of the rather low center of gravity on their racer. The Yamaha is exactly the opposite. Their center of gravity is much higher, and their wheelbase is approximately two inches shorter. The head angle is 31½ degrees, with 3.4 inches of trail. It appears as though the problem is just reversed, in other words, Yamaha would probably have an extremely fast and evil handling machine if their center of gravity were as low as the CR 250.

With the two completely different dimensions it is interesting to note that both of these machines handle much the same, whether it be fast, smooth corners or slow bumpy ones. Provided the track is loose and has somewhat of a cushion, both machines can be ridden and steered with the throttle. Once the course dries out and gets hard it is necessary to sit as close to the gas tank as comfortable to put weight over the front end. Otherwise, the front wheel has a tendency to wash out, and everyone knows what happens when this occurs. Finally, Yamaha has elected to switch to the non-mudding type rim, which is definitely an asset. The Honda has a mud-repelling DID rim. It's our opinion that both of these machines should be fitted with a 4.50 knobby rear tire. In their standard form they utilize a 4.00×18. With as much power as these two engines put out it is quite evident to us that they have more than enough horsepower to pull the extra weight. We also feel certain that the more than adequate suspension system in the rear would also handle the increased weight that would be bouncing around.

Many people have but one thing in mind, and that is performance. What they tend to forget is that once any mass gets moving the brakes must be adequate to slow it down, otherwise they are going to be in serious trouble. (Can you imagine a 450 Maico with a Bultaco brake?) This is another department that both of these bikes come through in with flying colors. The front and rear brakes on both machines work exceptionally well. Neither utilizes the popular floating hub on the rear, however the cable-operated Honda brake and rod-operated Yamaha brake worked well without giving any indication of wheel chatter. The Yamaha rear brake was somewhat more sensitive than that of the Honda, however this proved to be no problem. Both front brakes could be actuated on the lever and they operated smoothly and positively.

(Text continued on page 75)

PROJECT; THE NOGUCHI/YAMAHA/REDLINE/ETC., PART TWO

BY GORDON KARREL

OUR BUCKS-UP PROJECT CONTINUES AS THE CHASSIS FOR OUR SUPER MINI RACER GOES TOGETHER.

Last month, in Part I of this project, we explained that we were building a "money-is-no-object" mini-racer using components and accessories available to the general public. We also explained that we have no idea how the project will turn out: whether we will be successful or will end up building a staggeringly expensive "turkey." At this stage of the game it looks like we are working on a winner, but, of course, we won't be sure until the bike has been tested in competition.

Part I of this series was devoted to an evaluation of the Noguchi engine hop-up kit designed for the Yamaha GT-1 engine, and a brief analysis of the way in which the kit is installed.

Part II of our project is devoted to the construction of the chassis of our racer, and an examination of the Redline Engineering frame kit around which it is built.

The concluding part of the series, next month, will cover the testing of the machine. We'll report on how it runs, and we'll let you know about any last minute changes we've made to make the thing work more efficiently.

Shucks, folks, it was easy!

The single most expensive item in our project is the Redline Engineering Frame Kit designed for the Yamaha GT-1. The kit consists of the frame, swinging arm, folding foot pegs, and a bag of assorted hardware. The first question that comes to mind is, "Why spend that kind of money for a frame when you've already got one?" Well, the Redline Kit offers several advantages that aren't readily apparent. The swinging arm is 1.5 inches longer than stock. This means that the wheelbase is longer, which, in turn, means that the bike will handle better when traveling in a straight line over rough ground. Another advantage of the Redline unit is that it carries the engine closer to the ground. This lowering of the center of gravity accounts for an increase in handling stability. Also aiding the handling is the rigidity built into the Redline frame. The Redline frame is not only much stronger than the stocker, it is also much lighter.

Other "trick" components used in this phase of our project include: Arnaco 2ND shocks, a Torque Engineering fork conversion kit, 3.25x15 Indian universal tires, a fifteen-inch wheel from a Yamaha JT-1, Preston Petty Mini Fenders, Akront aluminum alloy handlebars, Unilevers, and a Fun 'n Fast air cleaner.

Actual construction begins with the installation of the swinging arm. If you want to save a little money you can have the old bushings pressed out of the stock arm, and install them in the new one. We had new bushings installed. We used a drop of Loctite on the swing arm pivot bolt to assure that it would stay in position. (Actually, we used Loctite on everything that didn't have a self-locking nut.)

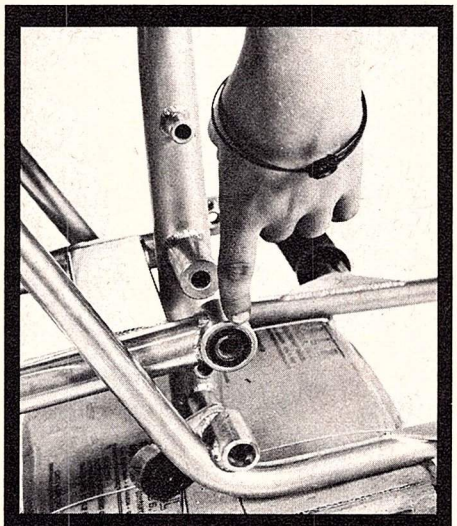
Next we installed the Arnaco suspension units. These shocks are designed especially for the Mini Enduro, and they do an excellent job of keeping the lightweight rear end on the ground. Pre-load on the springs can be adjusted over three inches, and the internal damping action can be adjusted by rotating an external screw. A very sophisticated shock!

Work on the rear end of the bike continues with the installation of the back wheel. The fifteen inch JT-1 wheel fits right into place. Because of the length of the Redline swinging arm, the stock brake rod would no longer fit. We obtained a rod from a Yamaha MX-100 and cut it to size. We got kind of trick with the mounting of the brake backing plate stay. We used an aircraft "click-pin" to hold the stay to the swinging arm. Now, when we want to remove the rear wheel, it's not necessary to unbolt the stay . . . simply depress the button on the "pin" and slip it out of the way.

The front end of the bike goes together in a straightforward manner. The stock bearing races are tapped into place in the Redline steering head, the bearings are "glued" in place with heavy grease, and the triple clamp and fork crown are installed.

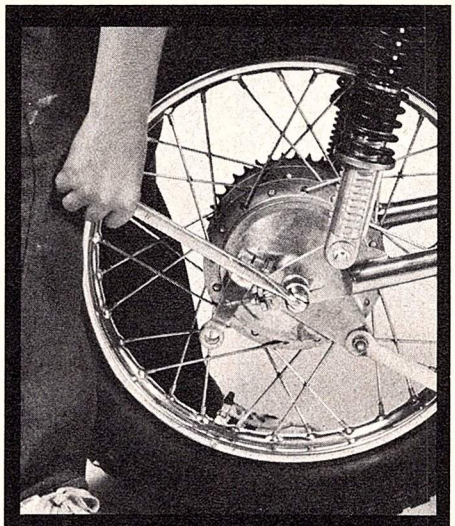
The Torque Engineering fork kit we used on our project bike is something that should be considered by anyone who's running a Yamaha Mini Enduro. The stock set-up features a spring and damping in only one of the fork legs. The other leg is simply two tubes . . . one sliding within the other: hardly the hot set-up. The Torque kit consists of: two fork legs (1 inch longer than stock), two progressively wound springs, and two damping units. Installation of the kit is simple, and it really improves the handling of the Yamaha Mini.

Preston Petty's unbreakable plastic fenders are popular replacement items, and the new ones he's de-



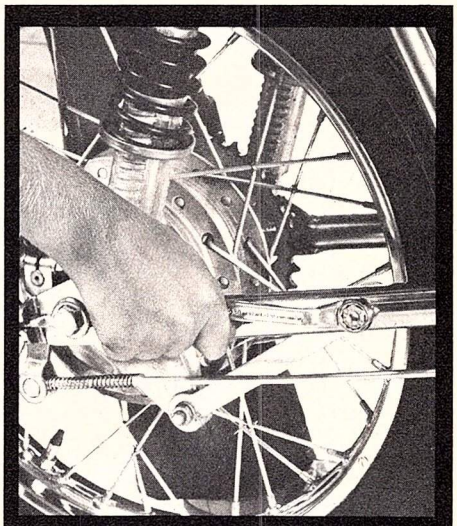
The first step is to hustle down to your local Yamaha shop and have the bushings pressed out of the stock swinging arm, and into the Redline arm. Better yet, blow a couple of bucks and have new bushings installed.

1



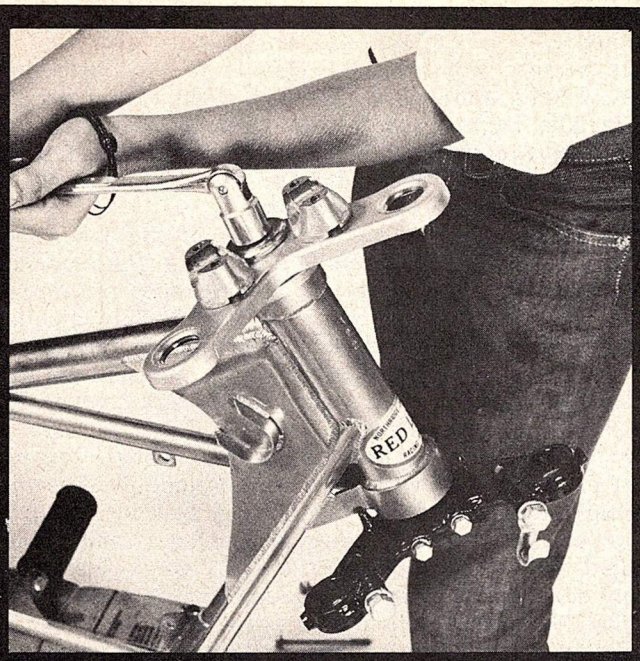
Next to go in place is the rear wheel. Since we wanted to use a fifteen inch rim we were forced to use a wheel off an early model JT-1 Yamaha Mini Enduro.

2



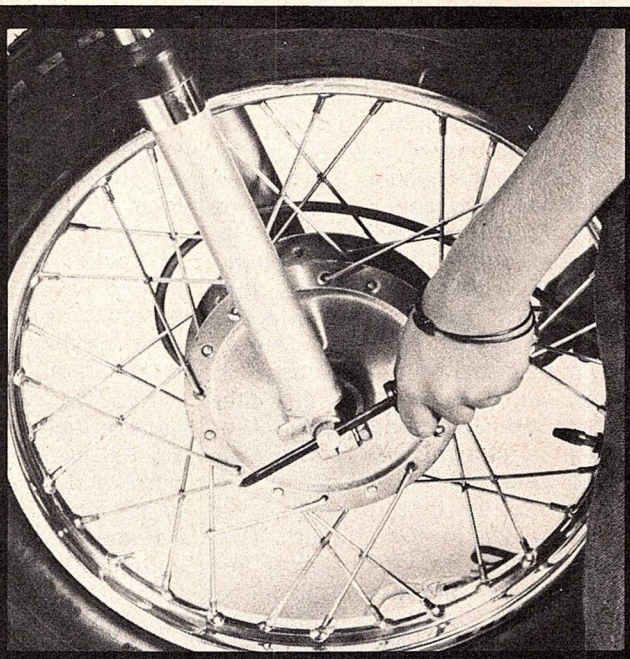
Brake pedal, brake rod, and the backing plate stay are next to be secured in position. The Redline swinging arm is 1.5 inches longer than stock; because of this it was necessary to buy a longer brake rod (from a Yamaha MX-100) and cut it to fit.

3



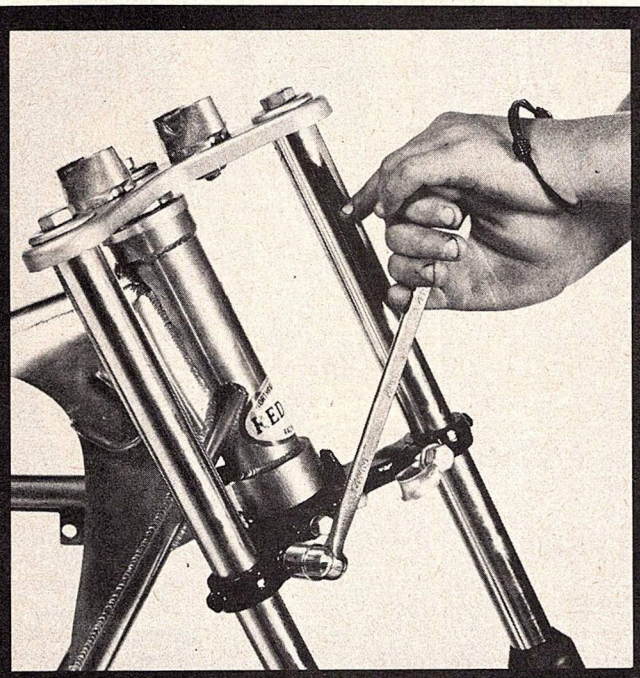
Now we step to the front of the bike. The stock bearing races are tapped into place in the Redline steering head. The bearings can be "glued" into position with chilled grease. Take it slow and all the little balls will stay in place.
Once the stem is in position, drop the fork crown in place. At this point, take care not to over tighten anything!

4



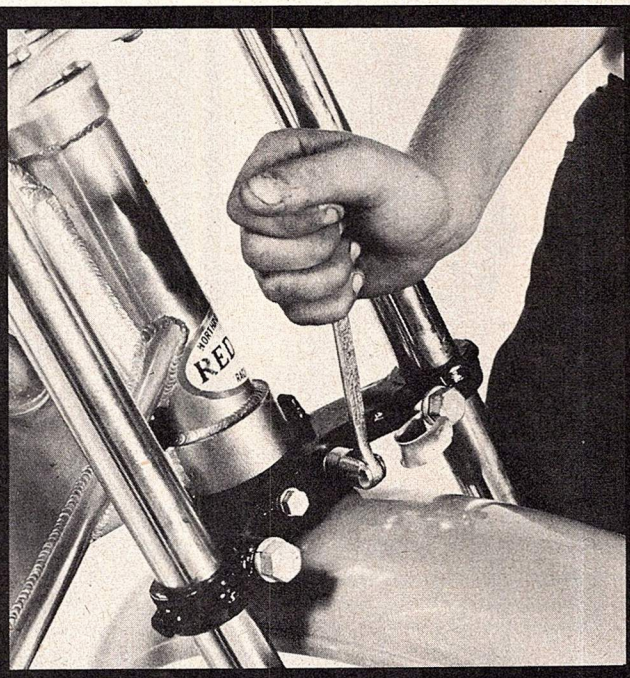
When installing the front wheel make sure that the axle is good and tight, and that the forks work freely before tightening down the pinch bolt at the bottom of the right fork leg.

6



Once the fork legs are positioned it's time to tighten everything down. Using a drift and hammer tighten the bearing nut under the fork crown. Exercise a little restraint at this point. If you get it too tight, the front end won't work properly.

5

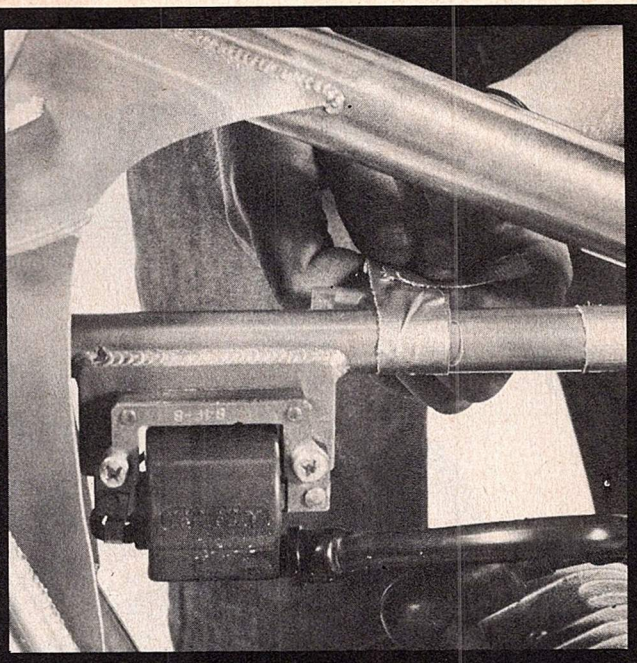


A new Preston Petty Mini Mudder was lined up, three holes were drilled, and the front fender went into place looking like it was designed for the machine.

7

Four bolts are used to position the rear fender. We cut a Preston Petty Mini fender to length, ground off the nuts welded to the front mounting tabs, and secured the fender with Phillips head bolts and self locking nuts.

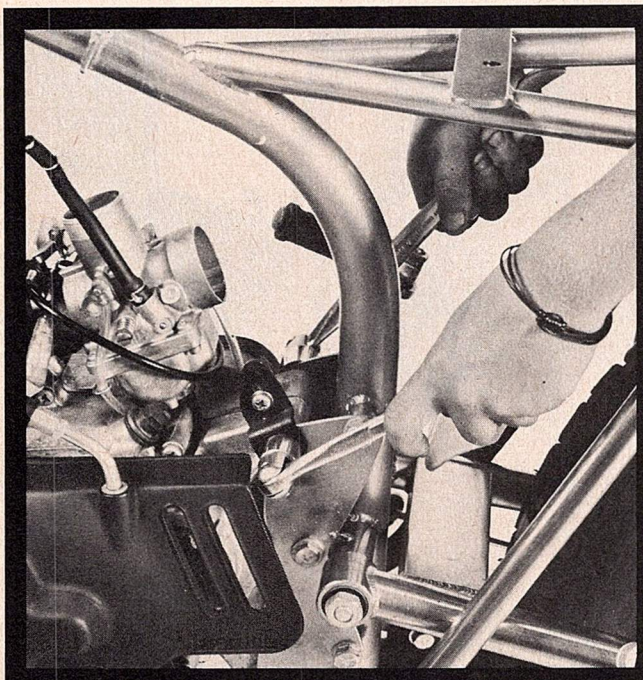
8



Using the stock screws and nuts, fasten the high tension coil to the tab mounted on the backbone tube. Make sure the mating surfaces are clean to ensure a good ground.

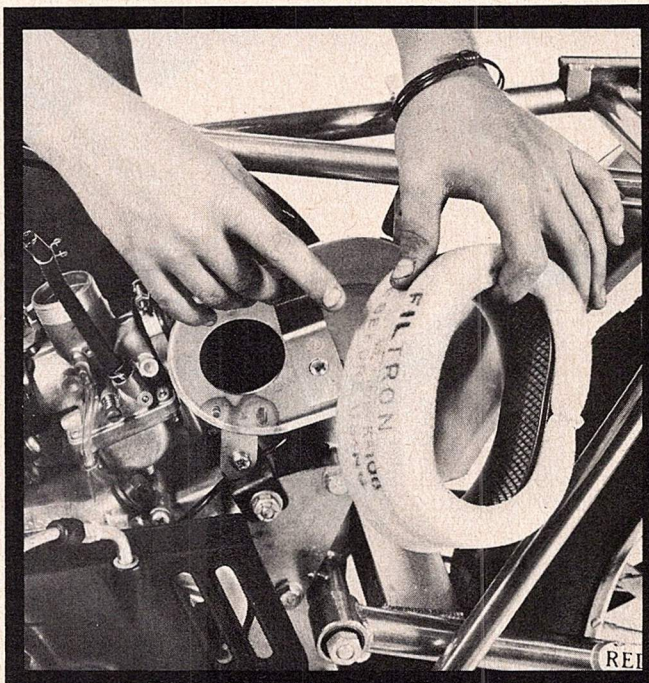
We used silver ducting tape to secure the wiring to the backbone tube, making sure that the wire was on the underside of the tube to prevent fraying on the rubber mounted gastank.

10



Position all of the engine mount bolts finger tight and make sure the engine is centered before cinching the bolts down. Even though the bolts are self locking we still applied a drop of Loctite. The Noguchi expansion chamber is supported at the rear by a shock mounted grommet. Meant originally to be bolted to the stock frame, we modified the grommet and welded it to one of the frame cross tubes.

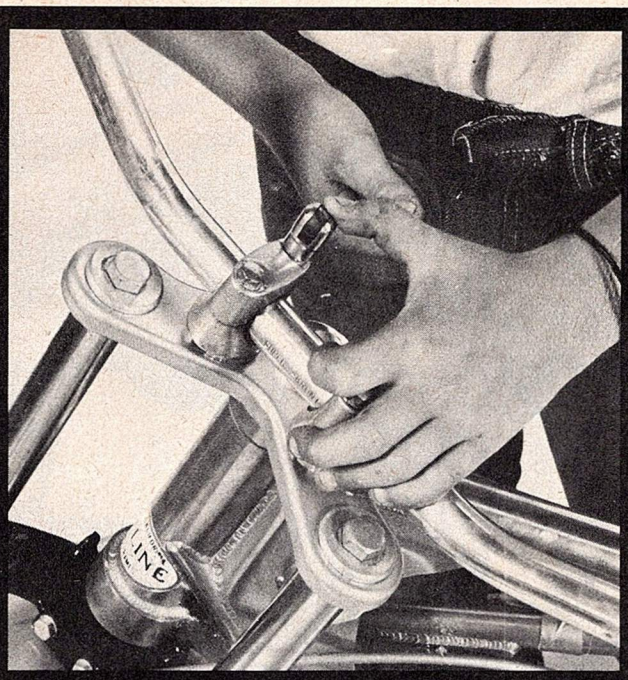
9



A Fun 'n Fast air cleaner filters out the dust and dirt. Two small tabs had to be made up to support the cleaner. A stock Yamaha hose connects the cleaner to the mouth of the carburetor, making a very clean installation.

A Filtron element is supplied with the Fun 'n Fast air cleaner. This is the hot set-up if you're riding in dry, dusty conditions, but if you're riding in the wet some steps should be taken to shield the air cleaner from water.

11



Trick Super-Akront aluminum handlebars were cut to length and clamped into place. The wall thickness on these bars is considerably greater than that on steel bars. Even with this additional wall thickness the Akront bars are much lighter than stock.

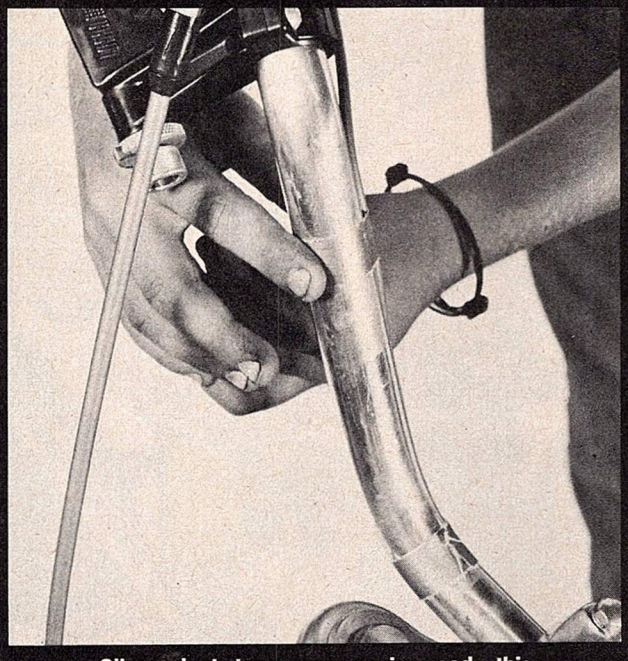
12

We got lucky! The throttle assembly slipped right into place, and the stock cable proved to be just the right length. Some ya win . . . some ya lose.

14

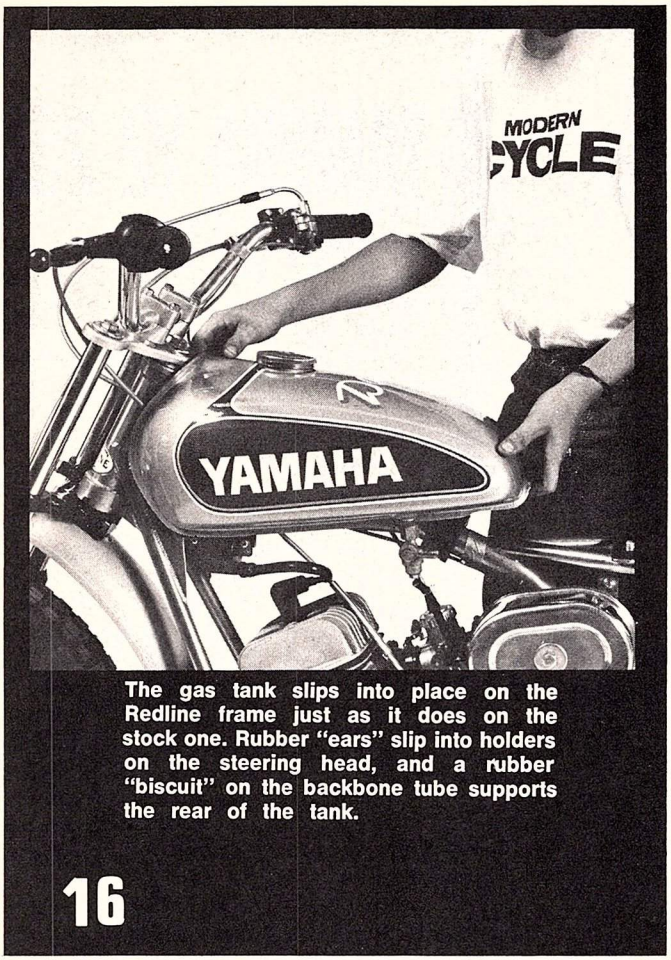
Lightweight, unbreakable Unilevers were fitted to the bars. These units are much lighter than stock, and they do seem to withstand damage. Modifying the ends of the stock cables was a real bitch!

13



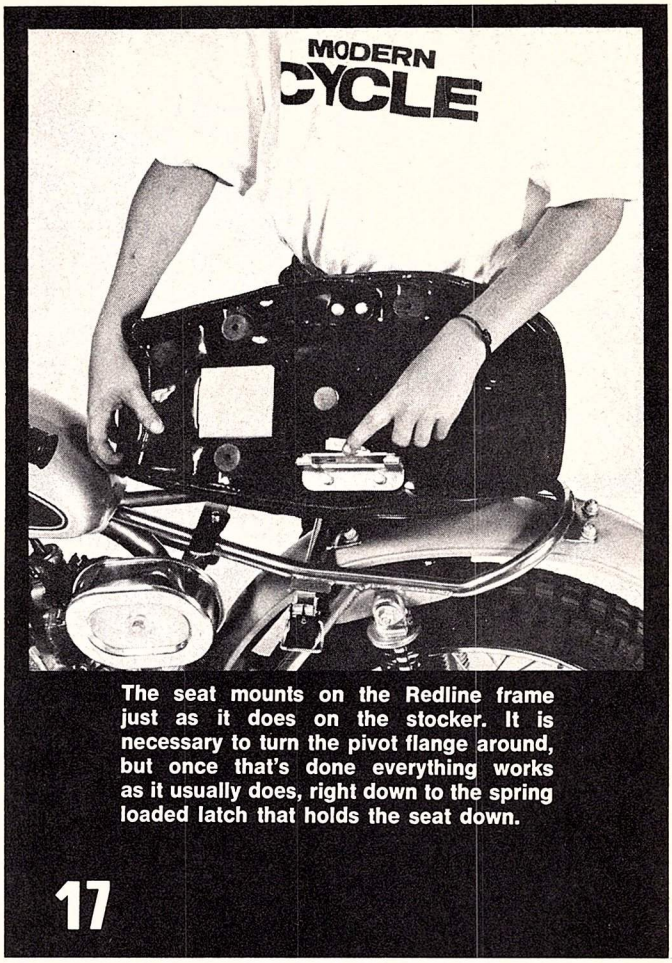
Silver duct tape was again used, this time to secure the kill button wire. Before finishing up the wiring we made sure that the snap connectors were tight and corrosion-free. We finished the wiring by sealing the fasteners with Silastic sealer.

15



The gas tank slips into place on the Redline frame just as it does on the stock one. Rubber "ears" slip into holders on the steering head, and a rubber "biscuit" on the backbone tube supports the rear of the tank.

16



The seat mounts on the Redline frame just as it does on the stocker. It is necessary to turn the pivot flange around, but once that's done everything works as it usually does, right down to the spring loaded latch that holds the seat down.

17

signed for mini cycles seemed perfect for our project. The fenders were cut to length, positioned, and then bolted into place. We're kind of proud of the front fender bracket; we made it by cutting up an old, lunched Mini Enduro fender. It took a little work with a hacksaw and file, but the end results were worth the time and trouble.

The Yamaha engine is held in the Redline frame by a set of engine mounting plates. The first time around we goofed and bolted the plates to the frame, and then tried to shoehorn the engine into place. It won't work that way! The plates go on the engine, and *then* the engine goes in the frame. Put all the nuts on finger tight, check and make sure that the engine is positioned properly, then cinch everything down tight.

When it came time to mount the exhaust pipe, we encountered the only problem in putting the bike together. The Noguchi pipe comes with a "hanger" that is meant to bolt directly to the stock frame. It, of course, didn't line up with any of the bolts on the Redline frame. A little welding cured the problem. The front of the pipe is supposed to be secured by a single spring between a "loop" on the pipe and a hole in one of the cooling fins on the barrel. We felt that something a little more elaborate was in order. We drilled two holes in the cooling fins, and we had an additional loop welded to the pipe. When done, we had a total of four springs holding the front of the pipe in position. It's better to be safe than sorry!

We again had to turn to Bill Butler for aid when it came time to fit an air cleaner to the bike. Bill's company makes a neat little oval cleaner that would fit perfectly on the bike, providing we had the mounting brackets to hang it in place. Bill made up the necessary brackets and we were in business, as far as clean air is concerned.

Throughout the project we selected components with an eye to keeping weight down. The choice of handlebars is a good example. The Super-Akront handlebars are close to half as light as a pair of ordinary steel bars; and they are very nearly as strong as steel. Weight was also a consideration when we selected the unbreakable Unilever control levers. Modifying the ends of the control cables was the usual pain in the fanny, but we feel the results were worth the effort. Surprisingly, the stock throttle cable fit with no modification whatsoever. Sometimes, you get lucky!

The seat mounts on the Redline frame just as it does on the stocker. It is necessary to turn the pivot flange around, but once that's done the seat flips up just as it does on the stock bike. Even the spring loaded clasp that holds the seat down fits on the Redline frame.

The gas tank also fits in the stock manner. Rubber "ears" hold the front of the tank to the steering head brackets, and a rubber "biscuit" supports the rear of the tank. We selected the colors we wanted on the tank, but we left the pattern and striping up to Bob Watson, who applied the paint.

The chassis went together in a surprisingly easy manner. Everything fit in the way in which it should. We weren't forced to rat-tail file any of the holes in the frame, and all of the stock stuff went right back into place.

So far everything has gone with a great degree of ease. The engine was assembled with no problems, and the chassis has gone together with an absolute minimum of bother. As it stands now, our Super Mini Racer is one of the most attractive machines on two wheels. Next month we will find out if it was worth all the trouble. Join us as we test the little devil and find out what's necessary in the way of jetting and gearing. ●

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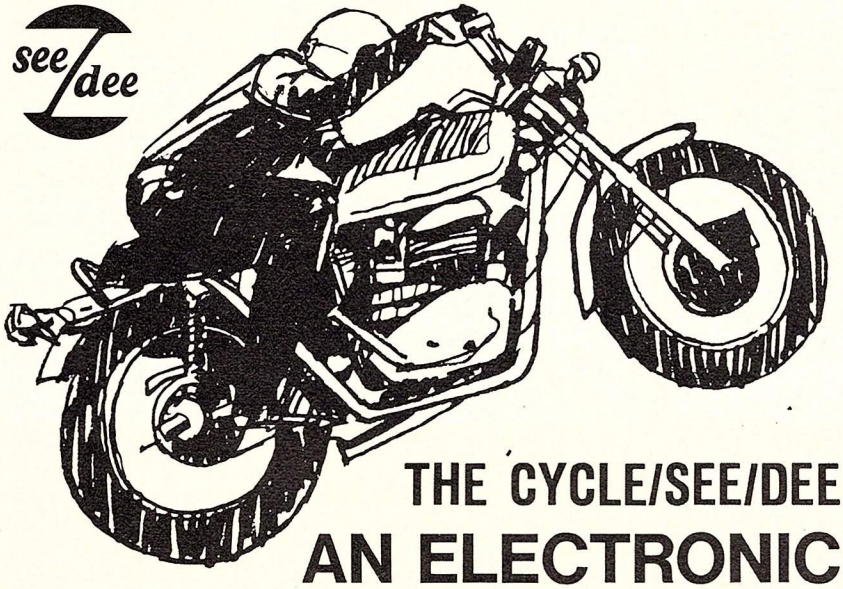

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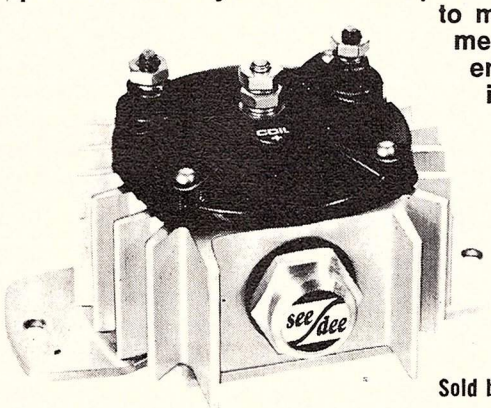

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YAMAHA YZ 250

(Text continued from page 61)

with various riders repeated these results. For all practical purposes, both bikes would run neck-and-neck through the gears, right on up to maximum speed, which was approximately 65 to 68 miles per hour. This proved, to our satisfaction, that the acceleration and top speed of both machines were, for all practical purposes, identical.

The same results were proven on the race course. Surprisingly enough, we came up with the same results in the handling department. In the very hard and dry corners both bikes had a tendency to wash the front end slightly. We feel that this washing was caused by weight transfer to the rear as the power was applied. To maintain traction it was extremely important to position as much weight as possible over the front wheel. When jumping and negotiating the roughest sections of the test course, the machines were amazingly similar in performance. It was surprising to us that the Honda would pull stronger, and accelerate harder out of a corner, at lower rpms than the Yamaha. Yamaha, with its torque induction reed valve system, is usually considered to be a real stump puller of a motorcycle. Yet, the Honda proved to have better low end grunt!

Th YZ's somewhat peaky power output made it necessary for us to use more gear changes than needed to get the Honda to perform in the same manner. However, the most noticeable difference between the two machines was one of basic "feel." After riding the Yamaha YZ, with the high seating position and the wide bars, the CR 250 Honda felt like a smaller, whippier motorcycle. Both bikes are, in their own way, comfortable. The exhaust pipes and kick starters are tucked completely out of the way of the rider, and each machine is fitted with a silencer that meets AMA standards. If either bike is to be used as a cow trailer or woods machine, a proper silencer should be fitted . . . the stock units are ridiculous!

The YZ is a definite improvement over the 250 MX, to say the least. It is highly suitable for serious motocross competition. However, for the amount of money this unit will set a customer back, we feel something more "trick" than a left hand kill button should be offered. ●

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SUMMARY

(Text continued from page 67)

CONCLUSION

After all is said and done, we still have two machines that for all practical purposes are equal. The method by which the results are achieved vary somewhat, but "for all practical purposes" any competent rider could go as fast on one as on the other. The Honda does have the redeeming quality of being able to pull from a lower rpm out of a corner, which in the long run definitely makes it the easier of the two machines to ride. Handling-wise, both machines exhibit the same characteristics. Here again the results are achieved by two different methods. On the race track we believe that these two machines are matched evenly enough that one is no better than the other.

Perhaps the last important consideration in the choice of any motorcycle is the cost. This is where we find the largest differential. The Honda sells for $1197, which, as anyone will attest, is no small outlay of cash. However, it is still cheaper than several popular European mounts. When it comes as an out-of-the-box stock racer that is extremely fast, and also offers the features that the CR does, one begins to understand the price. The Yamaha pricing, on the other hand, we feel is completely off base. Suggested retail price is $1593. Originally, we understand, it was close to $1800. Supposedly, the YZ is a factory replica racer. Who are we to disagree with Yamaha ad campaigns and claims? The YZ is a good motorcycle, however we feel that it is not quite up to the factory replica status. For a machine that sells for approximately $400 more than the CR we feel that it should run circles around the cheaper unit. It doesn't.

Finally, we asked each of our four staffers which machine they would pick for racing, if both were offered to them as a gift. This was done to negate any price differential. All four picked the Honda. One replied that if he was allowed to modify the basic stock package he would prefer the Yamaha.

The bikes are extremely close, and in the long run it's up to the purchaser to decide which suits him best. In the instance of the YZ, it also has to suit his pocketbook. Both machines offer a somewhat different approach to accomplishing the same goal. For some the feel of the Yamaha approach may justify the additional $400. But not for us, even if the kill button is on the left side. ●

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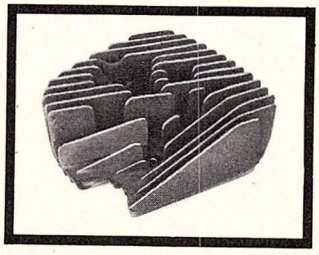

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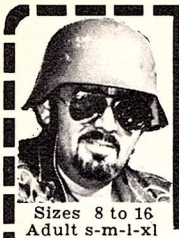

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(Text continued from page 27)

the time was just about expired, it was too late for Wolsink to repass. He settled for second, ahead of Pierre Karsmakers, who narrowly edged out the Husqvarna of Heikki Mikkola. Adolf Weil, after holding the lead earlier in the race, was fifth. Jimmy Weinert got a roar of approval from the enthusiastic crowd as he pushed the front end of his Kawasaki across the finish line. Weinert's 500 Kaw broke completely in half when he hit the bottom of the Grand Teton jump, sending rider and motorcycle sprawling in three different directions, fortunately without injury to hard-riding Jim.

Although the crowd was enjoying the races immensely, they were somewhat disappointed that some of their favorite American riders were not performing as expected, with the exception of 1973 Spanish Grand Prix winner, Jim Pomeroy. Brad Lackey, who had captured the hearts of all American motocross fans last year when he was the top American in the '72 Trans-AMA series, was having a bad night and was unable to get into the top ten in any of the motos. Gary Jones, winner of the Inter-AMA summer series on his factory Honda, was riding a Maico because his 450 Honda wasn't ready. He was hampered all evening with machine failure and never made the running. So, as in all previous years, the Europeans proved that they are still the kings of motocross when they visit here.

There was a spark of hope for an American as the third and final moto got underway. Gary Jones finally got his Maico together and proved his worth by running in third for the first half of the moto. Then that old bugaboo cropped up again, and Jones was sitting by the sidelines while Weil and Wolsink waltzed merrily on their way. The third moto offered little action for the fans. Weil grabbed the lead from the outset, with Wolsink in tow, and the order never changed. When Jones dropped out Jim Pomeroy was standing by with the flag to grab third place, but he was too far down on the leaders to mount any serious challenge to their positions. Pomeroy did an excellent job though, of holding back Pierre Karsmakers, who would have loved to improve his position at Jim's expense.

As the moto neared its completion, dozens of spectators endangered the lives of the riders, as well as their own, when they thoughtlessly streamed onto the track to tear down the banners lining the course. It was

pure luck that no serious injuries resulted to either rider or spectator. But as time ran out Adolf Weil threaded his way through the unruly mob to take the win ahead of Gerrit Wolsink and Jim Pomeroy, with Pierre Karsmakers in fourth and Tim Hart pushing his Yamaha to fifth.

When the Olympic scoring method was applied to the results of the three motos Gerrit Wolsink, a Dutch dentist, came out on top with three second place finishes worth six points, Adolf Weil had seven points with two firsts and a fifth place finish. Pierre Karsmakers came out third, and the best American overall turned out to be Tim Hart, fourth overall, by finishing eighth, seventh and fifth.

If is a big word in racing. So much could have been done "if only." But, for Rich Eierstedt, the young works Honda rider from Southern California, the big "if" came at the start of the second moto for the 250 support class. As the field headed for the first corner after the start, there was a twelve rider pile-up in the sandtrap. No one was injured, and most riders picked themselves up to restart their bikes and continue with the race. But for Eierstedt, who was at the back of the pack when the accident occurred, it meant losing too much valuable time threading his way through the fallen riders.

Eierstedt had handily won the first moto over second placer Ron Self, who edged Doug Grant after a race-long battle.

The second moto saw that big pileup that left Eierstedt far behind on the first lap and put John Borg out in front with a lead which he never relinquished. Bryar Holcomb took second, while Ron Pomeroy, brother of Jim, took third. Rich Eierstedt did a fantastic job of working his way back up to fourth place by the time the checkered flag came out.

Eierstedt took a big lead at the start of the third moto. Then on the second lap he threw it all away when he came off a jump sideways. Eierstedt got going again right away without losing much time, but he had lost the steam to force his way back up to the front and catch John Borg, the leader. The moto ended with Borg taking the win ahead of Ron Self and Eierstedt was third, just ahead of fellow Californian Bryar Holcomb. The final overall placings gave John Borg the win, Eierstedt settled for second, and Bryar Holcomb rounded out the top three. Bruce Dingler beat out Ron Self for fourth, even though Self had taken two second-place finishes. Self's drop out in the second moto pushed him down to fifth overall. ●

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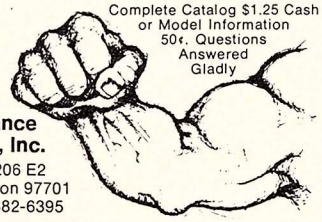

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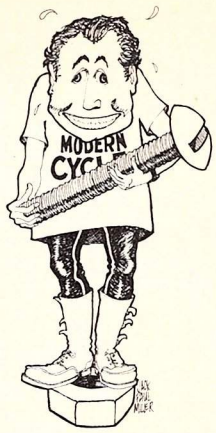

NUTS & BOLTS

We're reactivating the Nuts and Bolts technical question and answer column — your questions and our answers. Or, if you prefer, send us an answer or two, and we'll make up the questions. Either way, send along your technical queries, and we'll do our best to get an answer from one of the half dozen addicts (motorcycle variety) wandering around the halls here. If they can't come up with a likely answer, they'll find somebody who can, or fake an answer that sounds good enough to be true. Address all technical questions to Nuts and Bolts, *Modern Cycle Magazine,* 7950 Deering Avenue, Canoga Park, California 91304.

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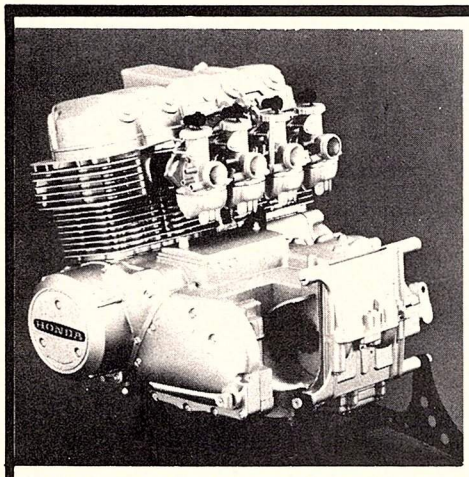

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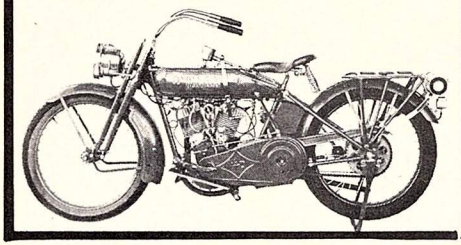

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(Text continued from page 54)

When you set out to design a really functional piece of racing equipment, you set yourself a whole series of goals: excellent engine output, outstanding handling, rider comfort, and lightness. This last feature was certainly not neglected when the basic design for the Honda Elsinore was laid down. Strong and light seem to be the two goals the engineers set for themselves. After weighing the CR 250, it's obvious that the Honda engineers came very close to their aim. Aluminum alloy, magnesium, chrome moly, plastic; it appears that Honda wanted to build the lightest production motocrosser on the market, and it's apparent that they hit their target. We've weighed a total of three 250 Elsinores, and all three scaled in at under 215 pounds dry, or 229 wet.

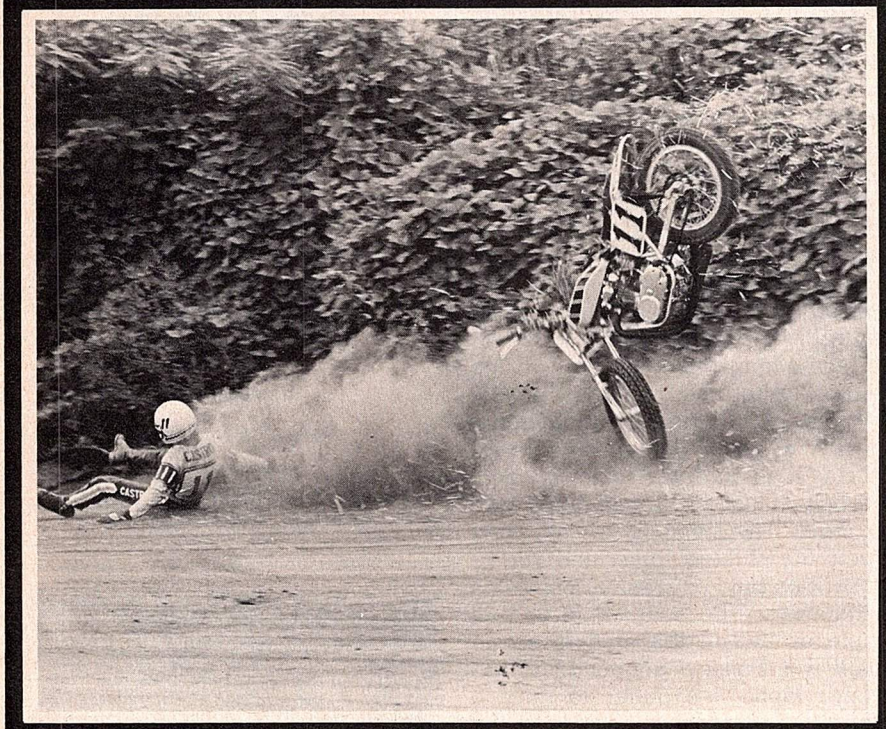
The gas tank on the Elsinore CR 250 is a good example of aiming at three goals, and coming up with a score each time. Let's say you wanted something light, strong, and good looking. You might have a problem coming up with something that would satisfy all three aims. But Honda didn't. They made the tank out of hardened aluminum. It's attractive; because it's of aluminum, it's light, and because the aluminum has been hardened, it's strong.

A threaded alloy cap seals the tank, and a rubber breather hose vents it to the atmosphere. One thing that distressed us was the size of the filler hole. We usually use a military type five gallon jerry can, with the flexible filler piper, for our two-stroke fuel. The filler hole in the CR 250 gas tank was too small to accept the end of the flexible pipe. A bigger orifice would be appreciated.

When we first approached our test edition of the Honda 250 Elsinore, we all agreed that the seat was too tall, and too firm. However, as the day of testing wore on, the seat "wore in," and by the end of the day we all agreed that it was a pretty good saddle. The relationship between the handlebars, the footpegs and the seat is well thought out, and the bike seems to "fit" a wide variety of riders. The width of the handlebars is just about perfect, but their height seems to have been selected with the medium sized rider in mind. The taller rider (including one of our staffers) will purchase a slightly higher bar. Because of the relationship between the bars, the pegs and the seat, the transition from the seated position to the stand-

(Text continued on page 80)

FUNNY, IT DOESN'T LOOK LIKE AN XS1



Sometimes you can come out ahead off a Yamaha as well as on one. Taking a look at factory rider Don Castro's situation might lead to changing the "Someday you'll own a Yamaha" slogan to something like: Someday you'll pass your own Yamaha. Gary Fleetwood photographed the getoff during the Atlanta Mile.

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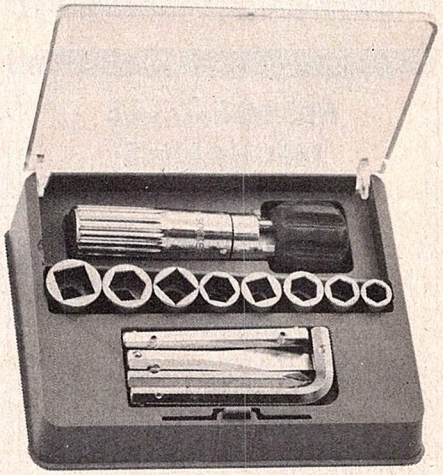

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(Text continued from page 78)

ing position is easily made. It's not necessary to use the handlebars to pull yourself upright.

Like everything else on the Elsinore, the footpegs are well conceived and executed. They're tucked in close to the bike, where they won't hang up when berm shooting or brush bashing. They're spring loaded folders, and they are serrated to give the boot good purchase. Both the shift lever and the brake pedal are light alloy forgings, and they're strong as hell. And, that has, in the case of the shift lever, created occasional problems.

The shaft on which the shift lever is mounted protrudes quite a distance out of the engine case. In some instances riders have unloaded with no apparent damage to the bike or to themselves. Then, when they try to get going again, they find that something has gone sour in the gearbox. What has happened is this: at some point during the accident a strain was put on the shift lever, since it's so strong, it didn't bend. The only thing that could bend was the shaft. The bending of the shaft affects the shifting forks, and you've got serious (and expensive) problems in the trans. The solution is to drill a hole or two in the shift lever, so that it will break if subjected to excessive loads. It's better to have a relatively inexpensive shift lever let go than it is to have to rebuild a gearbox!

Another much appreciated feature of the CR 250 is the fact that nothing gets in the rider's way. The pipe is routed beneath the engine, and it terminates in a rather inefficient silencer. Those riders who plan on using the Elsinore in the woods or desert will want to fit some sort of bash plate.

Another indication of the attention given to this new racer is the owner's manual supplied with the bike. It is a 50 pager that covers just about everything you would want to know. Detailed diagrams illustrate every part of the bike, and troubleshooting tips are also provided. The folks down at American Honda told us they use it as their shop manual.

With the CR 250 Elsinore, Honda has created a machine that represents a major step forward. It is a true out-of-the-box racer; all that is required to make it competitive are gas and oil. Perhaps we should say that the Elsinore is an out-of-the-box winner. As it stands, it is the best buy around if you're interested in racing 250cc motocross. ●

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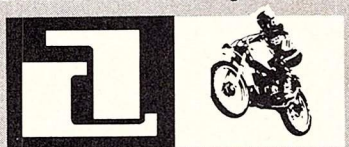

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TA DA

She's back, gang, because you demanded her. You know who we mean. No mere pit tootsie, but the genuine, super boss, spectackingtacular lady about wheels, our own Miss Modern Cycle. Just turn the page and eat your hearts out.

There's a new rule this time. WE CAN'T RETURN ANY PHOTOS YOU SUBMIT, SO SEND US A DUPLICATE PRINT YOU CAN SPARE. We have nothing against Instamatics really, or your favorite neighborhood drugstore and print shop, but the better the quality of the photo submitted, the more likely its chances of being selected for publication. Don't rush out and buy a Hasselblad 2 1/4. Keep saving your money for that new top end job, but get a good quality print made.

Send us black and white photos. By the time color prints get turned into black and white through the miracle of photo-chemical reproduction (can we use that word in a bike book?) they come out with a bad case of the blahs. And the image is generally softer than the butter that a CR250's transmision shifts as smooth as. (We read that in one of Peepers' road tests somewhere.) A good print size is 4x5 or 5x7.

A little biographical data would be helpful. Some shaggy guy across the hall just yelled out you should include her phone number too. We'll leave that up to you.

Remember the old deal? If your photo was selected you got five dollars and a year's subscription to good old MC. Well, that's still on, sort of. Maybe we'll surprise you instead. We could get a game of "Let's Make A Deal" going by mail. You know, we'll ask you whether you want us to send you the small white envelope or the large brown parcel. Of course the large brown parcel might be full of crankcase oil, drained for the first time from a DT1 purchased in 1968. Maybe we'll ask you to trade in some new spark plugs (Team Modern Cycle needs them) for what's in the duffel bag.

There's a rumor going around that photos submitted in centerfold fashion with the young lady overwhelmingly attired in motocross suspenders and a fetching smile will receive greater attention from the judges here at MC. You'll notice we didn't deny it, bunky. Send your entries marked to the attention of the Miss Modern Cycle Contest. That way Goodhart won't grab them before the Editor. We don't worry about Bobberman. He's too busy fooling around with his project bikes.

Be daring, be provocative. We may even start a Mister Modern Cycle Contest for you Burt Reynolds fans (presumably Kasey's crew) out there. Burt's a bike rider too, you know. Applicants wearing Maico undershorts will not be considered. Remember lack of originality counts, or is it the other way around?

Here's a tip on how to be really creative. Next time you bop on down to the newsstand (why aren't you subscribing?) pick up a copy of Vogue and study Avedon and Hiro. They know how to shoot a lady right. Don't worry if the salesman looks at you kind of weird like. Maybe it's because you're still wearing your Joffa. Tell him you once took Lauren Hutton riding in your sidecar. She digs sidecars.

While you're at it, send along what you think the lyrics to the Miss Modern Cycle Anthem are. The entrant that comes the closest to the actual lyrics just might be awarded a motorcycle—the winning bike in our Worst Bike of All Time Comparison Test. But don't let that stop you.

At the end of the year we may have a Miss Modern Cycle of the Year runoff, just like they do in that magazine with the rabbit on the cover that you have to sneak home inside your helmet bag. Bert Parks has already wired us to say he'll be there for the presentation. We knew he wouldn't stay lost out there in the sand dunes forever. Will Miss Modern Cycle be foxier than the Playmate of the Year? We thinks so, but it's up to you and your click click machines. Have at it, mates. ●

MISS MODERN CYCLE

This month's winning photo was submitted by an unidentified sore-armed curve baller passing through town on his way to San Diego for the Windsurfing Nationals. Its selection in no way reflects upon the staff of *Modern Cycle* or their heirs or assigns. Since it was the only photo submitted, it won by default. No biographical information was provided with the photo, and since its bearer was wearing spiked shoes at the time, we didn't pursue the matter. Make up something to go along with the picture. There really has to be a story there somewhere. She sort of reminds us of Estelle Winwood, with slight overtones of Tugboat Annie. The legs are pure Margaret Rutherford.

The photographer accepted the five dollars but declined the one year subscription to *Modern Cycle.* Said he gives at the office.

Now we really dig Estelle Winwood. She's a neat old lady, but we know the troops out there in reader land can come up with something more contemporary, shall we say. We can't evolve into full-color centerfolds without your cooperation. So get to it, gang.

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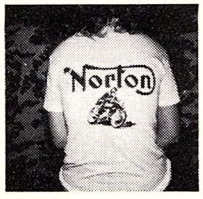
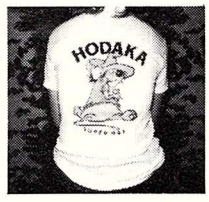


10–NORTON



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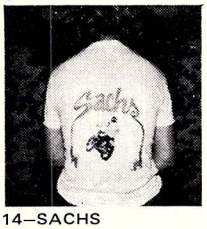
13–BULTACO



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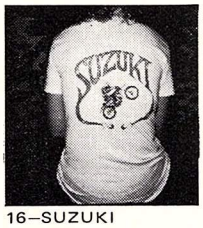
15–OSSA



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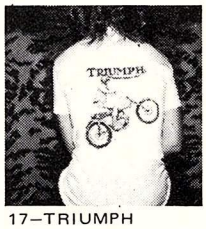

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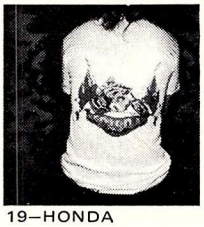
18–BSA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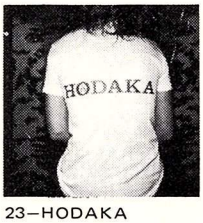
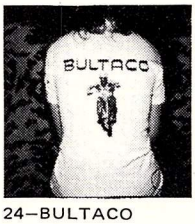
20–HD

21–GREEVES

22–YAMAHA



23–HODAKA



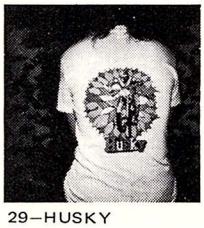
24–BULTACO

25–PENTON

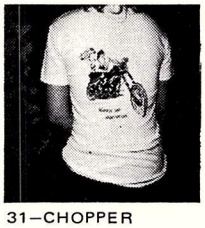
26–BRIDGESTONE

27–MONTESA

28–MAICO


29–HUSKY

30–KAWASAKI


31–CHOPPER

PLEASE TYPE OR PRINT

Dept MC

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

SHIP _____ (quantity) SHIRTS _____ (sizes) WITH _____ (designs)

SHIP _____ (quantity) TRANSFERS _____ (designs)

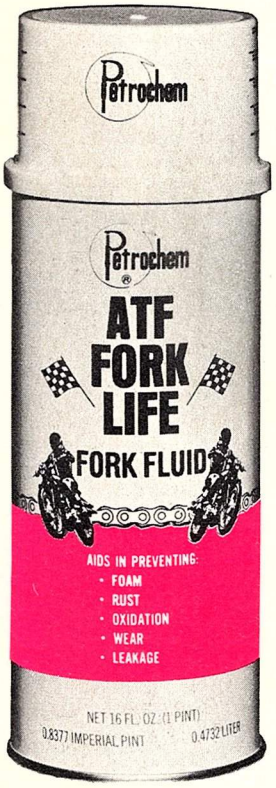
ORDER FROM, AND MAKE CHECKS PAYABLE TO:

SPECIFY DESIGNS BY MAKE AND NUMBER. IF ORDERING SHIRTS BE SURE TO SPECIFY SIZE. ALLOW 30 DAYS FOR SHIPMENT. CALIFORNIA RESIDENTS ADD 5% TAX. NO C.O.D.'s. PLEASE ENCLOSE CHECK OR MONEY ORDER WITH ORDER.

DEALER INQUIRIES INVITED

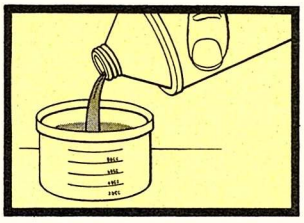
CYCLE SHIRT SHOP, SUITE 200 – 15840 VENTURA BOULEVARD – ENCINO, CA., 91316

Fork Care Kit • at your dealer • only $1.75

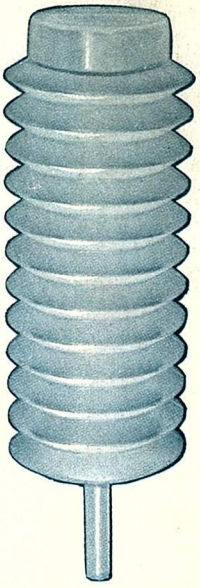


Honda recommends ATF fluid

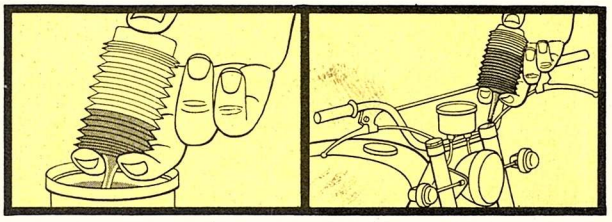
Petrochem ATF FORK LIFE has excellent anti-foam, -rust and -oxidation characteristics. Available in 10, 20, 30 and 40 weights. **Cap graduated in CC's for accurate fills.** Fill specifications on back of can for Honda, Yamaha, Suzuki, and Kawasaki cycles.



No spills. No funnel. No mess.



Effortless fork fills with the Bellows Syringe, a Petrochem exclusive. **Injects ATF Fork Life directly into the forks.** Allows ease of filling with no spills, no funnels, no mess. Prevents over-fills. Also may be used for filling batteries and crankcases.



SPARK PLUG, CONTACT AND CHAIN KLEAN

Plugs usually replaced due to excess oil and soft carbon deposits can now be renewed in seconds. **Just pull plug, spray electrode. Cleans chemically, dries in seconds, fires.** Also cleans plugs, points, etc.

CHAIN LIFE

In a recent survey conducted by **Cycle** magazine; **CHAIN LIFE** placed **first** over all other chain lubricants. Contains no oil, silicone, moly or graphite. Penetrates pins and rollers; repels dirt, sand, mud & grass.

HAND KLEAN

Petrochem foaming Hand Klean is an easy to use, waterless hand cleaner. Removes oil, grease, paint and ink like magic. Contains lanolin. Keep it handy in your tool kit or glove compartment for that emergency situation.

PETROCHEM ESP

Dries out and waterproofs ignition system. Also a rust inhibiting, lubricating and penetrating oil. **Spray entire motorcycle after washing. Shines like wax after wipe-off, protects paint and chrome, lubricates where needed.**

MOTORCYCLE WHEEL BEARING GREASE

Formulated for high temperature runs and shock loading conditions. Adhesive qualities hold better in bearings, even with poor seals. Available in 2½ oz. tool box size or the 1# economy size.

CABLE LIFE MINUS 70°

Formulated specifically for snowmobiles and motorcycles. Stays fluid to 70 degrees below zero. Aids in preventing throttle cable from freezing in open position. Displaces moisture, lubricates and rust proofs all moving parts.

Ashland®

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